

1977

# Virginia Commonwealth University Undergraduate Bulletin

Virginia Commonwealth University

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VIRGINIA COMMONWEALTH UNIVERSITY  
RICHMOND, VIRGINIA  
ACADEMIC CAMPUS, UNDERGRADUATE BULLETIN





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**Virginia Commonwealth University  
Undergraduate Bulletin**

**Academic Campus  
1977-78**

**Volume LII**

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**Number 3**



## **PREFACE**

Virginia Commonwealth University was created by an act of the General Assembly of Virginia during its 1968 session. The university was formed, effective July 1, 1968, by combining Richmond Professional Institute and the Medical College of Virginia. RPI became the nucleus of the Academic Campus, and MCV was designated as the MCV Campus of the university.

To obtain a bulletin for the Medical College of Virginia Campus, write:

Office of Admissions  
MCV Station, Box 163  
Richmond, Virginia 23298





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## 1977-78 University Calendar—Academic Campus

### 1977

#### July

- 8 —Last day for summer degree candidates to submit graduation applications to their advisors for August degrees
- 29 —Fall semester deadline for non-summer school students to submit all required transcripts, etc., for admission to a degree program
- 31 —Fall semester deadline for advance registered student bills

#### August

- 22-25 —Orientation, advising, and registration for continuing, re-admitted, and new degree-seeking day students
- 23 —University faculty meeting at 9 a.m.
- 23-24 —Evening College registration
- 26 —Registration for non degree-seeking day students
- 27 —Conferral of degrees for August graduates
- 29 —Classes begin at 8 a.m.
- 29-Sept. 2 —Add/drop and late registration for all students

#### September

- 2 —Last day to submit special day applications for fall semester
- 4 —Last day to withdraw and receive 80% refund
- 5 —Labor Day holiday
- 11 —Last day to withdraw and receive 60% refund
- 18 —Last day to withdraw and receive 40% refund
- 23 —Fall semester deadline for special day students to submit required admissions documents to receive credit
- Last day for fall degree candidates to submit graduation applications to their advisors for December degrees
- 25 —Last day to withdraw and receive 20% refund

**October**

- 10-Nov. 4 —Mid-semester evaluation
- 21 —End of first eight weeks—fall semester
- 31 —Advance registration—Evening College
- 31-Nov. 11 —Advising and advance registration for continuing day students for spring semester

**November**

- 18 —Last day to drop a course with a grade of “W”
- 23 —Thanksgiving holiday begins at 5 p.m.
- 28 —Thanksgiving holiday ends at 8 a.m.
- Spring semester deadline to submit an application for admission or re-admission to a degree program

**December**

- 9 —Last day of classes for fall semester
- Last day for undergraduate students to submit work for removal of incompletes from spring and summer semesters
- 10-18 —Final examinations for fall semester
- 15 —Spring semester deadline for advance registered student bills
- 16 —Final date for oral defense of graduate theses for December completion of degrees
- 17 —Christmas vacation begins at 12 noon, except for Sunday classes
- 20 —All fall semester grades due in registrar’s office by 9 a.m.
- 23 —Spring semester deadline to submit all required transcripts, etc., for admission to a degree program
- 31 —Conferral of degrees for December graduates

**1978****January**

- 3-4 —Evening College registration
- 3-5 —Orientation, advising, and registration for continuing, re-admitted, and new degree-seeking day students
- 6 —Registration for day non-degree-seeking students
- 9 —Classes begin at 8 a.m.
- 9-13 —Add/drop and late registration for all students
- 13 —Spring semester deadline to submit special day applications
- 15 —Last day to withdraw and receive 80% refund
- 20 —Last day for spring degree candidates to submit graduation applications to their advisors for May degrees
- 22 —Last day to withdraw and receive 60% refund
- 29 —Last day to withdraw and receive 40% refund

**February**

- 3 —Spring semester deadline for special day students to submit required admission documents to receive credit
- 5 —Last day to withdraw and receive 20% refund
- 20-Mar. 24 —Mid-semester evaluation



**March**

- 3 —Last day to process a change of major for fall semester
- End of first eight weeks—spring semester
- 4 —Spring vacation begins at 12 noon
- 6 —Summer advance registration begins
- 12 —Spring vacation ends at 8 a.m.
- 27-Apr. 7 —Advising and registration for continuing, day students for fall semester

**April**

- 7 —Last day to drop a course with a grade of “W”
- 28 —Last day of classes for spring semester
- Last day for undergraduate students to submit work for removal of incompletes from the fall semester
- 29-May 7 —Final examinations for spring semester

**May**

- 9 —All spring semester grades due in registrar’s office by 9 a.m.
- Final date for oral defense of graduate theses for May graduation
- 13 —Commencement
- 15 —Summer Sessions begin

**August**

- 11 —Summer Sessions end

## 1978-79 University Calendar—Academic Campus

### 1978

#### July

- 7 —Last day for summer degree candidates to submit graduation applications to their advisors for August degrees
- 31 —Fall semester deadline for advance registered student bills

#### August

- 1 —Fall semester deadline for non-summer school students to submit all required transcripts, etc., for admission to a degree program
- 21-24 —Orientation, advising, and registration for continuing, re-admitted, and new degree-seeking day students
- 22 —University faculty meeting at 8:30 a.m.
- 22-23 —Evening College registration
- 25 —Registration for non degree-seeking day students
- 26 —Conferral of degrees for August graduates
- 28 —Classes begin at 8 a.m.
- 28-Sept. 1 —Add/drop and late registration for all students

#### September

- 1 —Last day to submit special day applications for fall semester
- 3 —Last day to withdraw and receive 80% refund
- 4 —Labor Day holiday
- 10 —Last day to withdraw and receive 60% refund
- 17 —Last day to withdraw and receive 40% refund
- 22 —Deadline for special day students to submit required admission documents to receive credit
- Last day for fall degree candidates to submit graduation applications to their advisors for December degrees
- 24 —Last day to withdraw and receive 20% refund

**October**

- 9-Nov. 3 —Mid-semester evaluation
- 20 —End of first eight weeks—fall semester
- 30 —Advance registration—Evening College
- 30-Nov. 8 —Advising and advance registration for continuing day students for spring semester

**November**

- 17 —Last day to drop a course with a grade of “W”
- 22 —Thanksgiving holiday begins at 5 p.m.
- 27 —Thanksgiving holiday ends at 8 a.m.
- Spring semester deadline to submit an application for admission or re-admission to a degree program

**December**

- 8 —Last day of classes for fall semester
- Last day for undergraduate students to submit work for removal of incompletes from spring and summer semesters
- 9-17 —Final examinations for fall semester
- 15 —Final date for oral defense of graduate theses for December completion of degrees
- Spring semester deadline for advance registered student bills
- 16 —Christmas vacation begins at 12 noon, except for Sunday classes
- 19 —All fall semester grades due in registrar’s office by 9 a.m.
- 22 —Spring semester deadline to submit all required transcripts, etc., for admission to a degree program
- 30 —Conferral of degrees for December graduates

**1979****January**

- 3-4 —Evening College registration
- Orientation, advising, and registration for continuing, re-admitted, and new degree-seeking students
- 5 —Registration for day non degree-seeking students
- 8 —Classes begin at 8 a.m.
- 8-12 —Add/drop and late registration for all students
- 12 —Last day to submit special day applications for spring semester
- Last day for spring degree candidates to submit graduation applications to their advisors for May degrees
- 14 —Last day to withdraw and receive 80% refund
- 21 —Last day to withdraw and receive 60% refund
- 28 —Last day to withdraw and receive 40% refund

**February**

- 2 —Deadline for special day students to submit required admission documents to receive credit
- 4 —Last day to withdraw and receive 20% refund
- 19-Mar. 23 —Mid-semester evaluation

**March**

- 2 —End of first eight weeks—spring semester
- 3 —Spring vacation begins at 12 noon
- 5 —Summer advance registration begins
- 11 —Spring vacation ends at 8 a.m.
- 26-Apr. 4 —Advising and registration for continuing day students for fall semester

**April**

- 6 —Last day to drop a course with a grade of “W”
- 27 —Last day of classes for spring semester
- Last day for undergraduate students to submit work for removal of incompletes from the fall semester
- 28-May 6 —Final examinations for spring semester

**May**

- 8 —All spring semester grades due in registrar’s office by 9 a.m.
- Final date for oral defense of graduate theses for May graduation
- 12 —Commencement
- 21-Jul. 27 —Add/drop and summer orientation, advising, and registration
- 14 —Summer Sessions begin

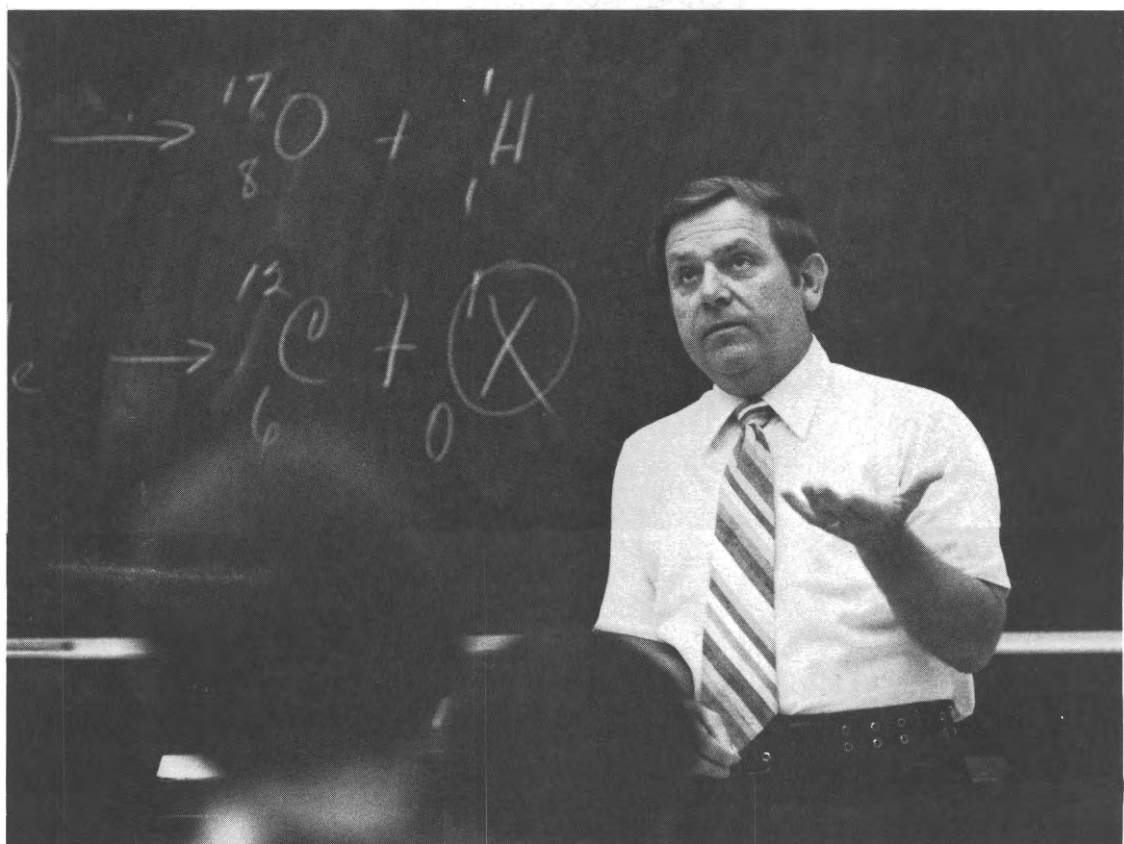
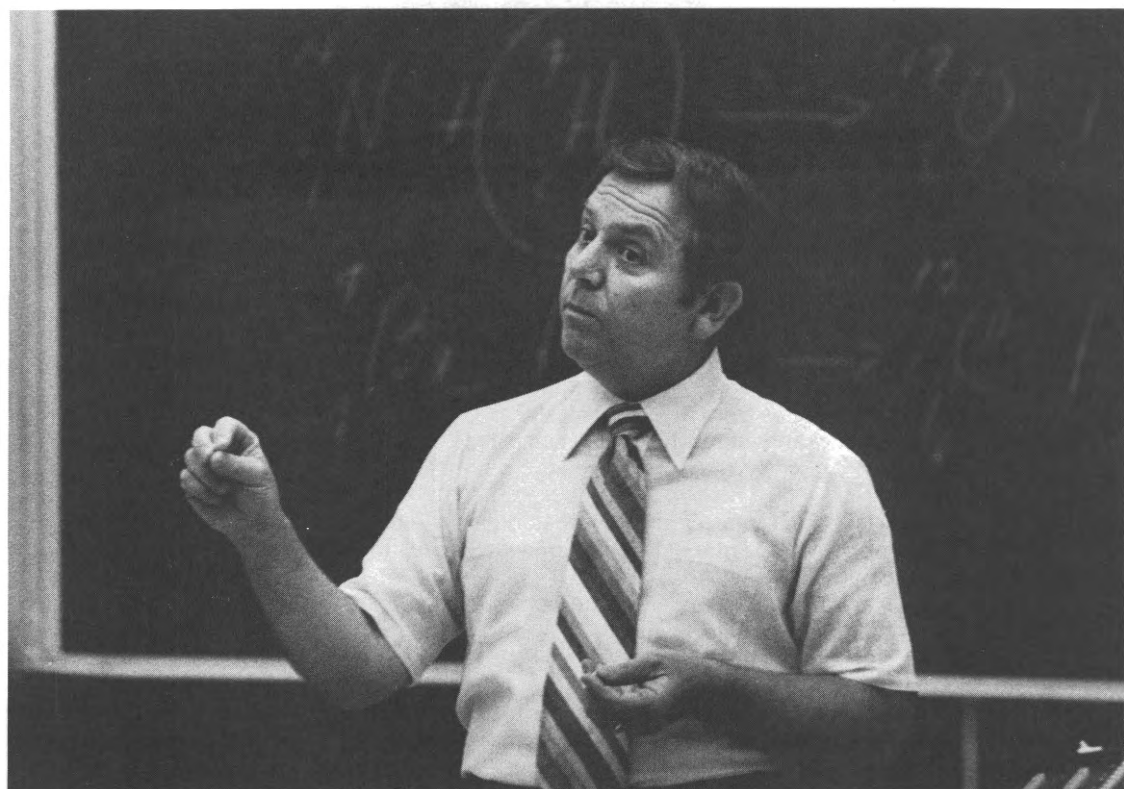
**July**

- 6 —Last day for summer degree candidates to submit graduation applications to their advisors for August degrees

**August**

- 11 —Summer Sessions end
- 25 —Conferral of degrees for August graduates





## **PART I—The University and Its Students**

### **VCU TODAY**

Virginia Commonwealth University is a coeducational, state-supported university located in Richmond, Virginia, enrolling more than 18,000 students. The Academic Campus enrolls over 15,300 students in the Schools of the Arts, Arts and Sciences, Business, Community Services, Education, and Social Work. There are approximately 7,000 full-time undergraduate degree-seeking students, about 5,600 part-time students, and more than 2,400 students pursuing graduate programs. The undergraduate enrollment includes approximately 2,600 freshmen and 2,500 transfer students each fall. The Medical College of Virginia (MCV) Campus, located two miles east across downtown Richmond, enrolls over 2,350 students and offers health-related programs of study.

The university has a diverse student body. College students of all ages pursue their education with individuals from every segment of society. Students from 48 states and 21 foreign countries comprise the university's cosmopolitan student body.

Students choose to study at VCU for a variety of reasons. Perhaps the most compelling is the university's urban setting. The location of the campus, in the center of Virginia's capital city, allows the majority of

students to commute easily to class, either from their homes or from apartments rented in the large residential neighborhood surrounding the university. Dormitory facilities are available for students who wish to live on campus.

Students who live and study here have the opportunity to be a part of the excitement of the city. VCU seeks, by design and action, to become a part of the city by not constructing the traditional academic walls. Its Academic Campus is located in a residential area, Richmond's Fan District. Many of the Fan District's buildings have been purchased and preserved by the university and are used as classrooms and office buildings. New university structures are designed to complement older residences and structures surrounding the campus.

While the university is committed to preserving time-honored structures, expansion of the physical plant on the Academic Campus has been extensive. Included are the James Branch Cabell Library; the School of Business Building; the Pollak Building for the School of the Arts; Rhoads Hall, a modern dormitory; and additions to the Hibbs classroom building and the gymnasium. A new science and education building, Oliver Hall, has recently been

completed and a center for the performing arts is in the planning stage.

### OPPORTUNITIES AVAILABLE FOR VCU STUDENTS

Life at VCU offers diverse opportunities, both for gaining quality education in one's chosen field of study and for attaining individual growth, satisfaction, and understanding.

#### Opportunities for Quality Education

A broad span of degree programs is offered by the 12 schools of the university on the Academic and MCV Campuses.

The scheduling of educational programs gives the university an educational profile different from most institutions. Education at VCU is offered during the day, at night, on weekends, and is extended throughout the summer in three, six, nine, and twelve-week sessions.

The university continues to recognize that many students in urban universities must earn while they learn. For this reason, the flexibility of programming both day and evening classes in great numbers has allowed students to work while seeking a degree.

VCU's Evening College, one of the largest in the nation today, has over 1,700 course sections for credit. Evening College offerings are academically integrated with the day program.

The part-time student has opportunity for graduate study in a number of fields.

Supervisory and management training are offered to night-shift workers in industrial plant classrooms.

Selected courses are designed to allow students to proceed at their own pace.

The College Level Examination Program (CLEP) allows students the opportunity to gain as many as 54 college credits without having to register officially for college classes.

VCU's student-faculty ratio is 16 students to one faculty member.

Over 658 full-time faculty members on the Academic Campus are dedicated to teaching and encouraging out-of-classroom contact between *themselves* and their students. An

adjunct faculty of 320 brings the expertise of businessmen, lawyers, state agency heads, and others with special knowledge and skills to supplement the strengths of the full-time faculty.

Each student is assigned a faculty advisor who will help with course selection and registration procedures. The advisors are available for counseling on any academic problem.

Among the advantages of the university is the growing effect of interdisciplinary cooperation and effort among the many professionals and scientists now gathered in the university community. Scholars in the various schools and departments meet with one another, discuss mutual problems, and form alliances of knowledge and expertise.

Virginia Commonwealth University is engaged in a research effort that has achieved national significance in several areas. VCU has been listed among the nation's top 100 universities in the amount of funds received from non-state sources for research and education.

Opportunities in the field of continuing education are many. Since 1968 the institution has provided educational renewal for more than 100,000 persons in fields ranging from medicine to the arts, from philosophy to computer sciences, from criminal justice planning to dentistry, from Russian language instruction to tax accounting.

As a form of laboratory, the city has permeated the university's programs, providing internships in the practical solution of urban problems for students in many disciplines.

Much of the enthusiasm expressed by students, faculty, and staff for VCU comes from the excitement of learning, teaching, and working in an urban setting and establishing a rapport with agencies of government, social service agencies, and planning agencies involved with problems of the city and its urban-suburban surroundings.

#### Opportunities for Self-Enrichment

One of VCU's many advantages is that it is not totally dependent upon its campus resources. The university draws upon the community and the community, in turn, draws upon the resources of the university.

The university offers the art collections of the Anderson Gallery and the concerts and productions of the Departments of Music and Theatre.

Students in the Department of Music and in other segments of the university interested in musical performances have the opportunity to participate in the bands, choral groups, orchestras, and various ensemble groups sponsored by VCU.

Each of the visual arts departments in the School of the Arts presents a major faculty and student exhibition each year in the Anderson Gallery.

The broad-range art collections and drama productions of the Virginia Museum and nearby theatres provide enrichment opportunities for those interested in the arts.

Many departments offer credit-granting opportunities for study abroad along with options for independent or organized travel.

Visiting artists and lecturers are brought to the campus by student clubs.

Persons of national importance selected by a student committee speak at university convocations.

The Judaic Culture Series brings outstanding Jewish scholars and performers to the campus for lectures, in-class discussions, and performances.

Political science majors in Arts and Sciences work in state and city internships for degree credit.

The Virginia State Library, the Richmond Public Library, the libraries of two other universities and a theological seminary, and the specialized technical libraries of state agencies and local businesses are available to VCU students.

The Smithsonian and the many federal government facilities in Washington, D.C., are approximately two hours from Richmond by car or bus.

### **Opportunities for Employment**

A metropolitan area of 550,900 persons, with a good public transportation system, Richmond offers excellent and diverse opportunities for part-time employment. Over half of the students are employed at least part-time during their academic careers. The university provides an excellent job referral service, and the work-study pro-

gram provides on-campus employment for qualifying persons.

Student personnel are hired by many university departments and offices, including the library, bookstore, departmental offices, and maintenance and ground crews.

Music students give private lessons to local residents.

Department of Theatre students find part-time, job-related employment and experience in local commercial theaters.

Community-service-oriented students find opportunities available with city and state agencies.

### **Opportunities for Recreation**

Classes are scheduled into five weekdays, leaving the weekends free for study and recreation.

The fall semester ends before Christmas. With examinations over, VCU students can relax and enjoy their Christmas vacations. The second semester examinations end by the middle of May, enabling students to seek summer employment.

Major concerts and shows appear regularly in Richmond at the Mosque, a block from the Academic Campus, or at the Richmond Coliseum, a block from the MCV Campus. Bus service connects the two campuses of the university.

Movie theaters are easily accessible from both campuses.

Student committees select the groups which play at university dances.

Richmond offers a wealth of parks and trails for biking or hiking. Sixty miles to the west are the Blue Ridge mountains for camping. Closer to Richmond are many rivers and streams for fishing and canoeing. Ninety miles to the east is Virginia Beach and the Atlantic Ocean.

The cultural and sports facilities of Washington, D. C., are two hours to the north, while the quiet charm of Colonial Williamsburg is less than an hour's drive to the southeast.

The VCU athletic program offers teams in NCAA intercollegiate competition and, through the physical education department, provides extensive intramural programs. Club teams are fielded in football, tennis, fencing, rugby, table tennis, and weight



lifting. An outing club has also been formed.

Modern gymnasiums, one on each campus; a 25-yard pool; weight training rooms; and tennis, basketball, squash, paddleball, and handball courts are available for recreational use when not being used for instructional purposes.

### Opportunities for Leadership

Students are actively involved in university governance procedures. Many departments and schools involve students as voting members of departmental and school committees.

The Council on University Student Affairs, in which students participate, considers student life matters for the university and recommends action to the University Assembly.

The student members, who participate as equals with the faculty and administrative members of the University Assembly, deliberate the policies that affect the quality of student life at VCU.

More than 100 student clubs and honorary service and social fraternities provide activities for the development of leadership potential.

The campus newspaper, the *Commonwealth Times*, and AM radio station WJRB, are entirely dependent upon student skills and leadership.

For more detailed information, see Part IV of this bulletin.

### Opportunities for Service

Virginia Commonwealth University provides numerous opportunities for students to participate in community service programs within the city and surrounding counties.

Education majors gain practical experience in the Richmond area public school classrooms.

Musicians in the Department of Music support local and statewide musical activities, including the Richmond Symphony. Music students also present concerts for the community.

Volunteer students tutor disadvantaged students in the Richmond area.

Students in the School of Social Work

serve the community through a variety of projects.

Foreign language programs have been broadcast in German, Spanish, French, and other modern languages over a local Richmond radio station by students enrolled in VCU foreign language classes. Foreign language majors interpret for local businesses and assist police and social agency personnel in interpreting for foreign travelers.

Theatre majors present numerous one-act plays and major productions in the university's theatres.

Theatre students work with penitentiary inmates in operating a drama program at the state prison.

Students in the School of the Arts exhibit across the state in schools, department stores, museums, and business and bank lobbies, as well as in major exhibitions across the country.

Interior design majors have practicums in designing interiors for local institutions, homes, and business firms.

Student projects support charitable activities and scholarship funds.

Student volunteers are involved in the Offender Aid and Restoration Program at the Richmond city jail.

Pre-health science career students work as volunteers in programs and clinics related to their career goals.

Workshops and seminars are held for law enforcement offices across the state.

### MISSION OF THE UNIVERSITY

Virginia Commonwealth University is a comprehensive, urban, public university whose mission is to provide a fertile and stimulating environment for teaching, learning, research, and service; to promote the pursuit of knowledge; and to disseminate professional skills. Characteristic of comprehensive universities, its thrust is toward the education of citizens who need the solid values and proven strengths of the past as well as knowledge of future alternatives in dealing with society's increasingly urban-influenced problems, wherever these problems may exist.

The university's mission includes the provision of:

A scholarly climate which will inspire in the student a lifelong commitment to learning and service; which will develop in the student competence and motivation to work toward the realization of individual and community potentials; and which will set for the student an example of excellence.

An environment of educational excellence which values diversity and enables faculty to pursue their work in accordance with the highest standards and to serve as exemplary role models.

Educational services for the adjacent urban community through flexible scheduling and for adults and professionals in adjacent regions through continuing education programs.

Educational experiences away from the metropolis for selected programs so that graduates are prepared to serve the Commonwealth in diverse locales.

Research and educational activities in all disciplines to develop and communicate new knowledge, to improve the quality of life, and to promote the best use and general understanding of human and environmental resources.

The recognition of the imaginative power of the arts and humanities in reflecting the problems and aspirations of society; and the providing of opportunities to emphasize the value of the arts and humanities for oneself and for society through public exhibitions and performances.

Comprehensive health care services which meet patient and community needs and which provide an optimal environment both for education and training of health care professionals and for innovative studies on improving health care delivery.

The establishment of the university as a planning and resource center which, drawing upon the unique resources of a major urban area, is devoted to the solution of problems confronting Virginia's communities; to the identification of emerging social needs; and to the planning required for orderly future growth and development.

## ACCREDITATION

Virginia Commonwealth University is an accredited member of the Southern Association of Colleges and Schools. Individual schools, departments, and programs on the Academic Campus are also accredited by a variety of state and national associations:

The School of the Arts: National Association of Schools of Art

School of Business: American Assembly of Collegiate Schools of Business (Undergraduate)

School of Education: Virginia State Department of Education

School of Social Work: Council on Social Work Education

Department of Chemistry: The American Chemical Society

Department of Music: National Association of Schools of Music

Department of Psychology: American Psychological Association accreditation of the Clinical Psychology Ph.D. program

## HISTORY

Virginia Commonwealth University takes its founding date from the Medical College of Virginia, which was created in 1838 as the medical department of Hampden-Sydney College. MCV became an independent institution in 1854 and a state-supported one in 1860. The first outpatient clinic was established in 1867. A second medical college, the University College of Medicine, opened in 1893 and was consolidated with MCV in 1913.

The Academic Campus began as the Richmond School of Social Work and Public Health in 1917. The school opened with 31 students and one full-time teacher and director, Dr. Henry H. Hibbs. In 1925 the school became the Richmond Division of the College of William and Mary. Fourteen years later its name was changed to Richmond Professional Institute of the College of William and Mary (RPI).

In 1953 RPI, previously accredited through connection with the College of William and Mary, was elected to full membership and accredited in its own name by the Southern Association of Colleges and Schools. By act of the General Assembly of 1962, RPI was separated from the College of

William and Mary and made an independent state-supported institution.

In 1968 the General Assembly approved a recommendation that RPI and MCV merge to form Virginia Commonwealth University. As a result, the new university came into existence on July 1, 1968, as a coeducational, state-supported institution combining a broad range of undergraduate, graduate, and professional programs with one of the largest and most comprehensive medical centers on the East Coast.

### **LIBRARIES AND THEIR RESOURCES**

Integral to the VCU life style and the opportunities for learning and self enrichment are the resources of the VCU Libraries. The casual atmosphere and the variety of seating, from one-person private carrels to lounge chairs in public areas, provide a setting conducive to browsing through current magazines as well as completing research projects.

The VCU libraries consist of the James Branch Cabell Library on the Academic Campus and the Tompkins-McCaw Library on the MCV Campus. Both libraries have expanded space and service through major construction projects and now provide a combined capacity of 1,360,000 volumes and seating for over 2,450.

The James Branch Cabell Library, recognizing the diversity in living and working patterns of VCU students, is open from 7:30 a.m. to midnight four days of the week and shorter hours on the three remaining days. Other features such as a recorded music and plays collection, audiovisual department assistance in film production, book and coat lockers for commuting students, inexpensive and easy-to-use copy machines, group study areas, and typewriter facilities make the James Branch Cabell Library a resource center truly serving the needs of the student body.

Students in the School of Education will find the University Curriculum Laboratory's children's literature, textbooks, and teacher's guides an indispensable part of their program of studies. The James Branch Cabell Library is also a depository for many United States government documents.

Of particular note is the reference service

of the James Branch Cabell Library. Staff members welcome and encourage students to ask those perplexing questions about the difficult-to-find materials which may be needed to complete an assignment or research paper successfully.

Realizing that not all students will be equally acquainted with the resources of the library, the James Branch Cabell Library provides group and individual orientation sessions where students learn to use the facilities to the best advantage.

The Tompkins-McCaw Library on the MCV Campus contains health science material. Complete sets of all major indexes in these fields are part of the reference collection. Trained search analysts are available to help students obtain computer-produced bibliographies on specific biomedical and health-related topics.

### **THE UNIVERSITY COMPUTER CENTER**

The University Computer Center provides computing support for the university administration and for the instruction, research, and public service functions of both the Academic Campus and the MCV Campus. The central office and major equipment of the center are located on the Academic Campus in the School of Business building, but two branch facilities are maintained at MCV. The central equipment includes an IBM 370/145 computer with over a million bytes of storage. This provides computing resources typical of large scale academic centers using IBM equipment. Remote job entry terminals and typewriter-like terminals are located on both campuses to provide convenient access to students, faculty, and staff.

The computer is used widely in the academic program of the university and is accessible to students at all levels. The center is open for student use from 8 a.m., to midnight five days a week and at posted hours on weekends.

The Academic Services Department of the University Computer Center publishes a *User's Guide* and a monthly newsletter, *Computereport*, which are available upon request. This group also provides short, non-credit courses and seminars upon re-

quest and offers consulting services on the use of the computing resources.

## ORGANIZATION OF SCHOOLS AND INSTRUCTIONAL DEPARTMENTS

The Academic Campus of Virginia Commonwealth University is organized into schools and departments offering undergraduate and graduate programs. The dean's office of each school provides the general coordination of the academic departments and programs within the school. Listed below are the schools with their undergraduate departments and programs:

### The School of the Arts

- Art Foundation Program
- Department of Art Education
- Department of Art History
  - Liberal Arts
  - Studio Arts
- Department of Communication Arts and Design
- Department of Crafts
  - Ceramics
  - Fabric Design
  - Jewelry/Metal Work
  - Wood/Furniture Design
- Department of Fashion Design
- Department of Interior Design
- Department of Music
  - Applied Music
  - Church Music
  - Composition and Theory
  - Music Education
  - Music History and Literature
- Department of Painting and Printmaking
  - Painting
  - Printmaking
- Department of Photography
- Department of Sculpture
- Department of Theatre
  - Theatre—Acting, Directing, Design
  - Theatre Education

### School of Arts and Sciences

- Program in Afro-American Studies
- Department of Biology
- Department of Chemistry
- Comparative and General Literature
- Department of English
- Department of Foreign Languages
- Department of History and Geography
- Interdisciplinary Studies in Humanities and Social Science
- Department of Mass Communications
  - Advertising/Public Relations
  - Broadcast News
  - News Editorial
- Department of Mathematical Sciences
  - Applied Mathematics
  - Computer Science

- Mathematics
- Statistics
- Department of Philosophy and Religious Studies
- Department of Physics and Physical Science
  - Dual Physics/Engineering Program
- Department of Political Science
- Department of Psychology
  - General Psychology
  - Behavior Technology
- Interdisciplinary Degree Program in Science
- Department of Sociology and Anthropology
- Pre-professional Studies in Health Sciences
  - Dental Hygiene
  - Dentistry
  - Medicine
  - Medical Technology
  - Nursing
  - Occupational Therapy
  - Pharmacy
  - Physical Therapy
  - Radiologic Technology
  - Veterinary Medicine
- Pre-professional Study for Engineering
- Pre-Professional Study for Law

### School of Business

- Department of Accounting
  - Governmental Accounting
- Health Care Organization Accounting
  - Managerial Accounting
  - Post Baccalaureate Certificate in Accounting
  - Public Accounting
  - Tax Accounting
- Department of Business Administration and Management
  - General Business
  - Finance
  - Insurance/Financial Security
  - Production/Operations Management
  - Personnel and Industrial Relations
  - Real Estate and Urban Land Development
  - International Business
  - Owner/Manager Business
- Department of Business Education and Office Administration
  - Business Education
    - Accounting
    - General Office Procedures
    - Stenography
  - Office Administration
    - General Secretarial
    - Legal Secretarial
    - Medical Secretarial
- Department of Economics
- Department of Information Systems
- Department of Marketing
- Management Center

### School of Community Services

- Department of Administration of Justice and Public Safety
  - Corrections
  - Juvenile Justice
  - Police Planning and Management

Traffic and Highway Safety  
 Department of Recreation  
     Public Recreation  
     Recreation Resource Management  
     Recreation in Special Settings  
 Department of Rehabilitation Counseling  
     Rehabilitation Services  
         Client Services Option  
         Manpower Services Option  
 Department of Urban Studies

#### School of Education

Department of Elementary Education  
     Early Childhood Education—N-3  
     Middle Elementary Education—4-7  
 Program in Library Science  
 Department of Health and Physical Education  
     Intramural Athletics  
 Department of Secondary/Post Secondary Education  
     Secondary Education  
         Biology Education  
         Chemistry Education  
         Distributive Education  
         English Education  
         French Education  
         General Science Education  
         History/Social Science Education  
         Mathematics Education  
         Physics Education  
 Department of Special Education  
     Mentally Retarded

#### School of Social Work

Baccalaureate Program in Social Work

### CATEGORIES OF STUDENT ENROLLMENT

VCU provides a variety of ways in which a student may pursue a course of studies. For specific information about admission to the various degree-seeking and non-degree programs, see Part II, the admissions section, of this bulletin.

**Degree-Seeking.** This student has fulfilled the admission requirements of a particular school and is enrolled in an associate (two-year) or bachelor's (four-year) degree program or a health sciences preparatory program. A degree-seeking student may engage in studies as either a full-time (12 credits or more per semester) or as a part-time (less than 12 credits per semester) student. A degree-seeking student may enroll for day and/or evening classes.

Furthermore, a degree-seeking student may pursue his program of studies in one of the following ways:

1. **As a declared departmental major in a school on the Academic Campus.** The student who declares a specific major upon entry to VCU will begin a course of studies leading to a degree in the declared major. (The student may change majors at a later date.)
2. **As an "Undecided" student with a specific school.** The new student who knows the school of the university he wishes to enter, but not the specific department, may select the "Undecided" category within that particular school. The student will be advised along general academic lines so that he may enroll in those courses which will assist him to more clearly define his academic objectives. The student must define these goals and declare a major area of study no later than the semester in which he will complete his sixty-second credit (two years of study).
3. **As a student in the General Studies Program.** In recognition that some students seeking admission to VCU will not have chosen a departmental major or the school of the Academic Campus in which they wish to study by the time they apply or enroll, the university has provided a general exploratory program of studies. This program is flexible enough to suit the interests of any uncommitted student, yet it is basic to a number of fields of study. During the first year of study the student is encouraged to investigate various fields of study until he finds a major which suits his interests and needs. Students enrolling in the General Studies Program must select a departmental major by the end of two years of study.

**Non Degree Seeking.** Students who wish to continue their education at VCU without seeking admission to a degree program may enroll for credit as "special" students in day and/or evening classes. A non degree-seeking student who takes at least one day class or combination of day and evening classes is known as a "Special Day Student." A non degree-seeking student who

takes all classes through the Evening College is known as a "Special Evening Student." (The student should consult the admissions section of this bulletin for exact admission requirements as a "Special Student.")

The special student may pursue course work in one of the following categories:

1. **As a Non-Degree Holder.** This student has not previously earned a baccalaureate degree. The student may take a maximum of 11 credits per semester (part-time) in day or evening courses or a combination of both.
2. **As a Degree Holder.** This student has previously earned a baccalaureate degree at VCU or another accredited institution and wishes to pursue additional undergraduate course work and may take more than 11 credits per semester (full-time) in day and/or evening classes or a combination of both.
3. **As a Transient Student.** This is a student who is presently seeking a baccalaureate degree at another institution of higher education and wishes to pursue a course of studies at VCU as a full-time student for no more than two semesters with the intent of transferring this work back to the home institution to complete his degree. This student may take more than 11 credits per semester in day and/or evening classes or a combination of both.
4. **As an Auditor.** This is a student who wishes to enroll in regular university courses for no credit, on a space available basis. The auditor is not subject to the usual attendance and examination requirements of regular university courses and may enroll for classes equaling more than 11 credits per semester in day and/or evening classes or a combination of both.

## DEGREE PROGRAMS

Degree programs at VCU's Academic Campus are offered in the following levels:  
Associate Degree (two-year program)  
Bachelor's Degree (four-year program)

Master's Degree (one and two-year program)  
Doctoral Degree

## Associate Degree Programs

The following degree programs lead to the associate degree.

### Associate in Science Degrees:

General Secretarial  
Legal Secretarial  
Medical Secretarial

## Bachelor's Degree Programs

Four-year degree programs are offered in each of the areas listed below, leading to the degree indicated:

### Bachelor of Arts Degrees:

Chemistry	History
Comparative and General Literature	English
Philosophy	French
Political Science	

### Bachelor of Fine Arts Degrees:

Art Education	Interior Design
Art History	Painting and
Communication	Printmaking
Arts and Design	Sculpture
Crafts	Theatre
Fashion Design	Theatre Education

### Bachelor of General Studies

### Bachelor of Music Degrees:

Applied Music	Church Music
Composition—Theory	Music History and Literature

### Bachelor of Music Education Degree:

Music Education

### Bachelor of Science Degrees:

Accounting	Information Systems
Administration of Justice and Public Safety	Marketing
Biology	Mass Communications
Biology Education	Mathematical Sciences
Business Administration and Management	Mathematics Education
Business Education	Office Administration
Chemistry	Physics
Chemistry Education	Physics Education
Distributive Education	Psychology
Economics	Recreation
Elementary Education	Rehabilitation Services
English Education	Science

## 22 The University and Its Students

French Education  
Health and Physical  
Education  
History and Social  
Science Education

General Science  
Education  
Sociology and  
Anthropology  
Special Education  
Urban Studies

### **Bachelor of Social Work Degree:**

Baccalaureate Program in Social Work  
Post-Baccalaureate Certificate in Accounting

### **Graduate Degree Programs**

The following graduate degree programs are offered at the Academic Campus of Virginia Commonwealth University. More detailed information is published in the graduate bulletins for each school.

#### **Master of Arts:**

Art History  
Economics  
English/English Education

#### **Master of Business Administration:**

Business Administration

#### **Master of Fine Arts:**

Crafts  
Painting and  
Printmaking

Sculpture  
Theatre

#### **Master of Art Education:**

Art Education

#### **Master of Education:**

Administration and  
Supervision  
Adult Education  
Biology Education  
Counselor Education  
Distributive  
Education  
Elementary  
Education

Mathematics  
Education  
Special Education  
Emotionally  
Disturbed  
Learning  
Disabilities  
Mentally Retarded

#### **Master of Music:**

Applied Music  
Church Music  
Composition

Music Education  
Music History

#### **Master of Music Education:**

Music Education

#### **Master of Science:**

Administration  
of Justice  
Biology  
Business  
Chemistry  
Mass Communications  
Mathematics  
Physical Education

Psychology  
Clinical  
Counseling  
General  
Rehabilitation  
Counseling  
Sociology

#### **Master of Social Work:**

Social Work

#### **Master of Urban and Regional Planning:**

Urban and Regional Planning

#### **Doctor of Philosophy:**

Chemistry  
Psychology  
Clinical  
Counseling  
General  
Social Policy and Social  
Work

### **PROGRAMS IN PREPARATION FOR PROFESSIONAL STUDY IN THE HEALTH SCIENCES**

The School of Arts and Sciences provides programs in preparation for the study of dental hygiene, dentistry, medical technology, medicine, nursing, occupational therapy, pharmacy, physical therapy, radiologic technology, and veterinary medicine.

These preparatory programs, varying from one to four years in length, meet the minimum academic requirements for application to the professional programs of many health science schools, including the degree programs offered on the Medical College of Virginia Campus of VCU. Admission to and completion of a preparatory program does not constitute admission to the final years of the professional program at MCV or other universities.

### **PROGRAM IN HEALTH CARE MANAGEMENT**

The School of Business cooperates with the School of Allied Health Professions in offering the program leading to the degree of Bachelor of Science in health care management.

### **PROGRAM IN PREPARATION FOR THE STUDY OF ENGINEERING.**

Students wishing to pursue a career in any of the fields of engineering may enroll as a physics major in the Department of Physics and Physical Science. This affords the student a broad background in science and mathematics, as well as exposure to the humanities and social sciences, before specializing in a particular area of engineer-

ing. The department will assist qualified students in transferring to accredited engineering schools upon the completion of the program.

### **PROGRAM IN PREPARATION FOR PROFESSIONAL STUDY IN LAW**

Both the School of Arts and Sciences and the School of Business provide academic advising for those interested in a career in law.

### **EVENING COLLEGE**

One measure of VCU's commitment to the community is the large Evening College which had its beginning in 1920 when 174 "after hours" students enrolled. In the fall of 1976, 4,000 students registered through this college and joined more than 4,800 day students who took part of their classes in the late afternoon or evening.

Many departments make it possible for working students to earn their degrees completely in the Evening College, but VCU also has many non-degree "special" students in evening classes. With something of an "open door" policy, the Evening College welcomes both the individual presenting the equivalent of a high school diploma or the Ph.D. wanting to further his or her formal knowledge. The ages of the students in evening classes range from 18 to "over 65". This mixture has been rated by faculty and students as a congenial one, making for lively discussion and enhanced learning.

The flexibility of educational scheduling provided by the Evening College is illustrated by its classes being taught in the evenings, the late afternoon, on week-ends, during the Christmas vacation, and in the summer.

Credit earned in the Evening College is the same as that earned in the day program. The Evening College is not a separate unit but a portion of an integrated university where classes begin at 8 a.m. and end at 10 p.m. Evening classes are taught by both the day-time and adjunct faculties.

Although there is no limit placed on the number of credits that may be earned in the Evening College, evening students who wish to earn a degree are encouraged to apply for a degree-seeking status through

the director of admissions as soon as possible. A separate bulletin of Evening College offerings is available upon request. Write to the Dean of the Evening College, Virginia Commonwealth University, 901 West Franklin Street, Richmond, Virginia 23284.

### **SUMMER SESSIONS**

The variety and flexibility of VCU's educational program is especially visible during the summer. In 1976, 8,000 students studied at the Summer Sessions. Students come to make up classes, to learn new skills, to expand their fields of study, to keep their professions up-to-date, and for intellectual refreshment.

The summer classes are planned around various sessions of three, four, five, and six weeks, and some one-week/one-credit workshops. Classes are beginning and ending almost every week during the summer months. For good students who are planning to devote their summer to study, it is possible to put together a proper combination of the above sessions and to earn up to 15 credits in the 13 weeks of summer sessions.

Announcements of the VCU Summer Sessions offerings are made each March in a special tabloid section of the *Richmond Times Dispatch* and are available upon request from the Summer Sessions Office.

### **OFFICE OF CONTINUING EDUCATION**

Continuing education is one of the major purposes of the university. In keeping with this purpose, numerous courses, workshops, institutes, and seminars, ranging from cultural enrichment programs to specific professional topics, are offered by the various schools of the university through the Center for Continuing Education.

VCU, recognizing its responsibilities to the citizens of the Commonwealth, accomplishes its continuing education commitment through the Office of Continuing Education by providing a variety of "off-campus" credit and "on and off campus" non-credit educational opportunities.

The university maintains the Center for Continuing Education in the Holiday Inn/Downtown. Located at 301 West Franklin



Street, it is about midway between the two VCU campuses. The center coordinates the availability and use of guest rooms, dining facilities, and conference space for participants in short programs offered by the various schools and departments in the university.

Many of the offerings of the Office of Continuing Education are announced via supplements to the daily newspapers. In addition, special courses and programs directed toward certain professional groups are announced by direct mailings to potential participants.

Further information may be obtained by writing to: Office of Continuing Education, Virginia Commonwealth University, 301 West Franklin Street, Richmond, Virginia, 23220.

### **ADVANCED SCHOLARS PROGRAM**

Qualified high school seniors from area high schools may be permitted to carry college level courses at the university concurrently while completing the high school diploma. Students are permitted to select those courses of interest and upon successful completion, receive appropriate college credit. The program, available during the academic year and summer, provides the capable high school student an opportunity to (1) experience college courses while still in high school, (2) obtain college level credit, and (3) complete courses frequently not available in a high school curriculum.

Candidates must be nominated and approved by the secondary school. A maximum of 100 candidates will be accepted for each term and candidates may enroll for no more than three courses per term.

As a guide to secondary schools, the following criteria for selection are considered:

1. Each candidate must have completed his junior year.
2. Each candidate must have achieved a total of 1,000 points on the College Entrance Examination Board SAT (100 on the PSAT) or have maintained a "B" average.

Notification forms and other information may be obtained from the Director of Admissions, Virginia Commonwealth University, 920 West Franklin Street,

Richmond, Virginia 23284. Telephone (804) 770-7222. After hours, weekends, and holidays, phone (804) 770-7225.

### **ADVANCED PLACEMENT**

Qualified students who have taken college-level work in secondary schools may receive academic credit and/or advanced placement. Examinations which determine advanced placement are the Advanced Placement Tests of the College Entrance Examination Board; results are forwarded to the Office of Admissions. Final determination of credit will be made after test results have been evaluated by the university.

### **COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)**

The university is an authorized open CLEP Testing Center and awards college credit to VCU students who score satisfactorily on various CLEP examinations. A maximum of 21 semester hours of the general examinations and 30 semester hours for the subject examinations may be granted in college equivalency.

Prospective candidates who desire information about this program and requirements for credit should write the Director of Admissions. Current VCU students interested in accelerating their academic program should consult with their advisor and the CLEP Administrator, Oliver Hall, 1015 West Main Street.

### **LEARNING CENTERS**

Two learning centers, one on each campus, provide individualized programs of remedial and enrichment instruction for students who are admitted as special students and for regularly admitted students who experience academic difficulties. The centers, equipped with the most recent learning aids and materials, feature individualized self-paced, non-credit programs of instruction. University students use the resources of the learning centers by scheduling individual programs during their personal study time. Interested students are invited to visit the Academic Campus Learning Center, located on the corner of Floyd Avenue and Brunswick Street, to examine the facilities and to obtain a

“Student Referral Form,” which serves as an application to use the center’s study programs.

Currently, study programs are available for study habit skills, developmental reading, black history and literature, language arts, drug and sex education, mathematics, citizenship, and social studies. These study programs are designed for self-enrichment. They may not substitute for university course work and do not earn university academic credit. Other programs are available upon request.

### SENIOR CITIZENS HIGHER EDUCATION PROGRAM

The General Assembly of the Commonwealth of Virginia passed and the Governor signed into law the “Senior Citizens Higher Education Act of 1974.” This law was amended in 1977 to apply to citizens *60 years or older*. The Senior Citizens Higher Education Act provides that any legal resident of the state who, before the beginning of any term or semester . . . in which he or she claims benefits of the act, and who has had his legal domicile in the state for one year may without paying tuition:

- register for and enroll in courses as a full-time or part-time student for academic credit if he had a taxable income not exceeding \$5,000 for federal income tax purposes for the year preceding the year in which enrollment is sought.
- register for and audit courses offered for academic credit.
- register for and enroll in courses not offered for academic credit.

The tuition-free policy shall apply except that the senior citizen shall be subject to fees established for the purpose of paying for course materials, such as laboratory fees.

There is no limit to the number of semesters in which a senior citizen, who is not enrolled for academic credit, may register for courses but he may register for no more than three courses in any one term . . . or semester. The Senior Citizens Act benefits shall be available to persons 60 years old or older with the following legally mandated provisos:

- the senior citizen shall be subject to

admission requirements of the institution.

- the institution shall determine whether or not it has the ability to offer the course or courses.
- *the senior citizen shall be admitted to a course after all tuition paying students have been accommodated.*

Senior citizens wishing to avail themselves of the opportunity to study at Virginia Commonwealth University should call

- for day courses: Sue Ellen Zahradnick—Office of Admissions, 770-7222.
- for Evening College courses: Dinah Wolfe or Roy Hogrefe, 770-6731.
- for Continuing Education courses: Pat Asch, 770-3746.

### INTERNATIONAL STUDENTS AND VISITORS

The university subscribes to the intent and purpose of the Mutual Educational and Cultural Exchange Act, which permits international students and visitors to become a part of the university community until their educational objectives are met.

In order for the university to qualify with the United States government as a place for training for international students and visitors, the university is obligated to determine: (a) that applicants have the necessary ability and educational backgrounds to benefit from their experiences at this institution; (b) that their proficiency in English is sufficient to carry a full program of study or training as this institution and community have no resources for teaching English as a second language; and (c) that they have all the funds necessary for their expenses for the entire period of their stay without resorting to employment while in the United States. The university has no financial resources for foreign students.

Foreign students who do not hold visas for permanent residence cannot qualify as residents of Virginia and must pay the non-resident tuition charges.

Once a foreign national has been admitted, the student is treated as any other student except for the Immigration and Naturalization rules and regulations which take precedence over the university rules.

The university cannot register a foreign national until the Immigration and Naturalization Service officially gives its approval.

The university has a foreign student advisor who meets with all foreign students after their arrival, counsels and advises them in their adjustment to the university, and prepares the necessary government forms needed by foreign nationals to maintain correct visa status with the U.S. government.

### **SPECIAL SERVICES PROGRAM**

Through a grant from the federal government, VCU has developed a program designed to attract students from low income areas, in accordance with federal guidelines. Candidates are chosen because of academic potential, not necessarily because of academic performance. Teachers, high school counselors, and persons affiliated with programs such as Upward Bound, Talent Search, Model Neighborhood, and the National Scholarship Fund for Negro Students are encouraged to recommend students to the program.

Special Services provides continuous supportive services, counseling, tutoring, career planning, and cultural enrichment for persons recruited as special service students.

Students interested in the Special Services Program should write to the Office of Admissions, 920 West Franklin Street, or may contact the Special Services Office by telephone: (804) 770-3158, or write to the Director of Special Services, Virginia Commonwealth University, 915 West Franklin Street, Richmond, Virginia 23284.

### **ALUMNI OF THE UNIVERSITY**

Alumni of VCU are associated to help the university achieve its many goals. Communications between alumni and the university serve to acquaint the alumnus with the university today and to keep him informed of current events. An appeal for financial support for the university and its programs is made each year by the Annual Fund.

Alumni activities are coordinated for the university by the Alumni Activities Office. Inquiries should be directed to the Director of Alumni Activities, 828 West Franklin

Street, Richmond, Virginia 23284, telephone (804) 770-7124.

### **CENTER FOR IMPROVING TEACHING EFFECTIVENESS**

The Center for Improving Teaching Effectiveness was established in 1973 at the suggestion of the Faculty Senate.

The purposes of the center are to improve teaching effectiveness in three main areas—instructional development, organizational development, and personal development—by providing workshops, seminars, individual counseling and self-study programs, and classroom observation.

Through the center, teachers are able to discuss classroom problems and receive individual diagnostic help as well as share innovative ideas about teaching.

The center is located at 310 N. Shafer Street, (804) 770-8253.

### **RPI FOUNDATION**

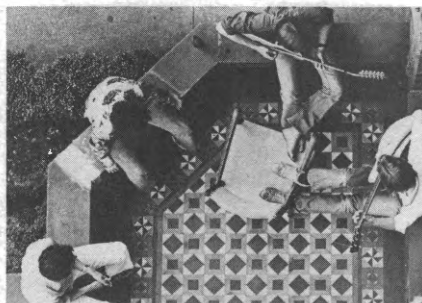
The RPI Foundation was organized in 1917 as a charitable, non-stock foundation known as Richmond School of Social Economy, Inc., to acquire buildings for educational purposes for the use by the institution. Since that time the foundation has had a number of name changes until it was designated the RPI Foundation in 1964.

In June 1963 the charter of the foundation was revised to provide for it "to assist, support, and foster the Richmond Professional Institute in all proper ways."

The affairs of the RPI Foundation are managed by a board of trustees which has responsibility for the investment as well as distribution and expenditure of funds entrusted to it. The foundation administers the following funds: Blake Fund—Chair in Real Estate; Lyons Fund—Judaic Studies; Freasier Tax Award Fund and the Hyland Scholarship Fund, in addition to the General Endowment Fund held for the benefit of the Academic Campus.

### **RIGHTS RESERVED**

Virginia Commonwealth University reserves the right to change the information, regulations, requirements, and procedures announced in this bulletin.



## PART II—Academic Campus Admission

The Office of Admissions staff is available to provide general information, distribute applications and catalogs, and provide specific information pertaining to the admissions process. The office is open from 8 a.m. to 4:30 p.m., Monday through Friday. Services are extended after regular hours and weekends by a Telephone Message Service and Catalog/Application Distribution Center outside the office.

Prospective students and their parents are welcome to visit the campus. Guided campus tours, departing from the University Reception Center at 909 West Franklin Street, are conducted weekdays, except holidays, at 12 noon. If an appointment is desired with a member of the admissions staff, it is advisable to write or telephone the office two weeks in advance. Although campus lodging accommodations are not available for visitors, commercial motels are located near the campus.

Application forms and bulletins are available free of charge and may be obtained by mail, telephone, or by visiting the office. The mailing address for the Office of Admissions is 920 West Franklin Street, Richmond, Virginia 23284. Telephone (804) 770-7222. After hours, weekends and holidays, telephone (804) 770-7225, or stop at the *Distribution Center* outside the office.

### CATEGORIES OF STUDENT ENROLLMENT

VCU provides a variety of ways in which a student may pursue a course of studies.

**Degree-Seeking Student.** This student has fulfilled the admission requirements of a particular school and is enrolled in an associate (two-year) or bachelor's (four-year) degree program or a health sciences preparatory program. A degree-seeking student may engage in studies as either a full-time (12 credits or more per semester) or as a part-time student. A degree-seeking student may enroll for day and/or evening classes.

Furthermore, a degree-seeking student may pursue his program of studies in one of the following ways:

1. As a **declared departmental major** in a school on the Academic Campus. The student who declares a specific major upon entry to VCU will begin a course of studies leading to a degree in the declared major. (The student may change majors at a later date.)
2. As an **"Undecided"** student with a specific school. The new student who knows the school of the university he wishes to enter, but not the specific

department, may select the “Undecided” category within that particular school. The student will be advised along general academic lines so that he may enroll in those courses which will assist him to more clearly define his academic objectives. The student must define these goals and declare a major area of study no later than the semester in which he will complete his sixty-second credit (two years of study).

3. As a student in the **General Studies Program**. Recognizing that some students seeking admission to VCU will not have chosen a departmental major or the school of the Academic Campus in which they wish to study by the time they apply or enroll, the university has provided a general exploratory program of studies. This program is flexible enough to suit the interests of any uncommitted student, yet it is basic to a number of fields of study. During the first year of study the student is encouraged to investigate various fields of study until he finds a major which suits his interests and needs. Students enrolling in the General Studies Program must select a departmental major by the end of two years of study.

**Special Student.** A student who plans to continue his education at VCU without seeking admission to a degree program may enroll for credit as a special student in day and/or evening classes.

The special student may pursue course work in one of the following categories:

1. As a **non-degree holder**—This student has not previously earned a baccalaureate degree. The student may take a maximum of 11 credits per semester (part-time).
2. As a **degree holder**—This student has previously earned a baccalaureate degree at VCU or another accredited institution and plans to pursue additional undergraduate course work. The student may take a maximum of 19 credits per semester.
3. As a **transient student**—This is a student who is presently seeking a baccalaureate degree at another institution of higher education and is in good standing at that institution and plans to pursue a course of study as a full-time student at VCU for no more than two semesters with the intent of transferring the work back to the home institution to complete his degree. This student may take a maximum of 19 credits per semester.
4. As an **Auditor**—This is a student who plans to enroll in regular university courses for no credit, on a space available basis. The auditor is not subject to the usual attendance and examination requirements of regular university courses and may enroll for classes not exceeding 19 credits per semester.

Credits earned as a special student will be recorded on the student's permanent academic record, and although there is no limit placed upon the number of credits that can be earned in this classification, students who wish eventually to earn a baccalaureate degree are encouraged to seek admission to a degree program before accumulating 22 semester credits.

Special students should be aware that they are not assigned a faculty advisor, but make their own class selections. Credits earned at another institution are not evaluated by the university while a student is classified as a special student. In addition, special students do not participate in orientation activities but register on a specified day for any class in which vacancies exist. However, special students are subject to the continuation regulation stated in this bulletin. (See Part V, page 57 of this bulletin).

## PART-TIME ATTENDANCE

An individual may pursue a degree or enroll as a special student on a part-time basis in day and/or evening classes. Degree programs and admission procedures are listed on pages 21 and 30, respectively. Special Student Guidelines may be found on page 32.

### EVENING COLLEGE/SUMMER SESSIONS ATTENDANCE

VCU day and evening programs are academically integrated and credit earned in the Evening College is identical to credit earned during the day. An Evening College student is one who takes only Evening College courses (for classification purposes, any student who takes at least one course during the day is classified as a "day student"). A student may register for courses in the Evening College as a degree-seeking or a special student.

Evening College/Summer Sessions information may be requested by mail, telephone, or by stopping by the office. The mailing address is Evening College/Summer Sessions, Virginia Commonwealth University, 901 West Franklin Street, Richmond, Virginia 23284. Telephone (804) 770-6731. Refer to Part I for additional Evening College/Summer Sessions information.

### ADMISSION PROCEDURES

It is the responsibility of the applicant to see that all required admission documents are forwarded to the Office of Admissions, Virginia Commonwealth University, 920 West Franklin Street, Richmond, Virginia 23284. These documents become the property of the university and are not returned to the applicant. After all required documents have been received, candidates will be considered and will be notified of the decision as soon as possible.

The following must be submitted to the Office of Admissions when applying for an undergraduate degree program:

1. Official Application Form. **Candidates seeking admission to the university in an undergraduate degree program** (or as a readmission candidate) must file an official Undergraduate Application for Admission before the specified deadline. Special day students must complete a Special Day Application Form. Care should be taken to read the directions accompanying the application and to complete all information requested. Incomplete applications may result in a processing delay.
2. A \$10 non-refundable application fee.

This fee is required with all undergraduate applications for degree programs. A fee is not required with a **Special Day Application or an Advanced Scholar Application**.

3. Official transcript(s) of courses completed. Freshman candidates should ask their guidance department to forward an official copy of their secondary school record. The records should contain courses and grades carried, rank in class, and overall grade point average. **Transfer candidates** should ask the registrar of all accredited colleges attended to send an official transcript of their grades. **Transfer candidates** who have attempted less than 30 semester hours (45 quarter hours) must also submit their secondary school record. The Office of Admissions will obtain for **readmission candidates** the student's VCU transcript. If the **readmission candidate** has attended other colleges since leaving VCU, the applicant must ask the registrar to send official transcripts to the Office of Admissions.
4. Scholastic Aptitude Test (SAT) Scores. All freshman candidates, except those who are 22 years of age or older, are required to submit SAT scores of the College Entrance Examination Board. The SATs should be taken during the fall of the senior year in high school.

**Holders of a GED certificate under 22 years of age** are required to submit SAT scores.

**Transfer candidates** who have attempted less than 30 semester hours (45 quarter hours) and who are under 22 years of age must submit SAT results. The CEEB college code number assigned to the Academic Campus of VCU is 5570. For information concerning test dates and centers, consult your high school or community college guidance office or write the Admissions Testing Program, P.O. Box 592, Princeton, New Jersey 08540.

5. **Applicants to the School of the Arts** are required to complete the Art Admission Packet which is mailed to the



candidate after the application is submitted. The applicant will return the packet directly to the School of the Arts.

6. **Second Baccalaureate Degree.** A student who wishes to earn a second baccalaureate degree at the university should complete an admission form for the second degree. This form may be obtained from the Office of Admissions and should be returned to that office. Upon receipt of the student's previous academic records, the Office of Admissions will notify the student to confer with the appropriate assistant dean. After a review by the assistant dean and the department chairman, the school's decision will be forwarded to the Office of Admissions, which will notify the student of the decision. The student seeking the second undergraduate degree must earn a minimum of 30 additional semester credits at VCU and must also satisfy any supplementary requirements of the department or school granting the degree.

**If the applicant has been suspended from VCU or another college for disciplinary reasons** or has been incarcerated, the candidate's name will be referred to the VCU Office of Student Life for clearance.

## CONCURRENT REGISTRATION

Refer to page 35.

## ADMISSION GUIDELINES

The selection of candidates for admission to the university is conducted without regard to race, sex, creed, or national origin.

The credentials of undergraduate applicants for admission to the Academic Campus are reviewed on an individual basis. Applicants are selected on the basis of their high school record, college record, Scholastic Aptitude Test results, counselor's evaluation, evidence of interest and motivation, and intended major field of study.

As the number of candidates who meet the requirements for admission exceeds the number that can be admitted, the university selects those applicants who present the

strongest qualifications in scholastic achievement, aptitude, character, and extra-curricular activities; and show evidence of aptitude for achievement in the specific field of study for which the applicant applies.

## Freshman Admission Guidelines

An applicant must be a graduate of an accredited secondary school or hold a GED certificate. A high school candidate should submit an application for admission after the junior year is completed, unless the application is for the Early Admission Program or the student is applying as an Advanced Scholar.

For admission to the School of Arts and Sciences, School of Business, School of Community Services, School of Education, School of Social Work, or the General Studies Program, the following high school units are required: four units in English; two units in mathematics, one of which must be algebra; two units in science, one of which must be a laboratory science; and two units in history or social sciences or government. Applicants seeking admission to programs in mathematics, business, secondary education, science, the pre-professional health-related programs, or pre-engineering should acquire additional units in college preparatory mathematics and laboratory sciences.

The School of the Arts does not have unit requirements from high school. In place of the requirements, degree candidates receive an Art Admission Packet designed to measure the applicant's ability and aptitude for the arts. The packet forms an important part of the basis on which an admission evaluation will be judged. Applicants to the visual arts field should not submit a personal portfolio, but are required to complete the drawing and design exercises specified in the packet. Applicants to the Departments of Music or Theatre must complete the written information in the packet and are required to participate in an audition arranged by the appropriate department. Applicants to the Department of Music must also show evidence of attaining proficiency in one or more areas of music performance and take the musicianship placement examination.



All freshman candidates, except those who are 22 years of age or older, are required to submit Scholastic Aptitude Test scores. Holders of a GED certificate under 22 years of age are also required to submit SAT scores.

### Transfer Admission Guidelines

Transfer candidates are considered for admission provided they present evidence of good standing at the last institution attended. A cumulative "C" average (2.0 on a 4-point scale) in all hours attempted at all accredited colleges attended is expected for admission. Transfer candidates who have attempted less than 30 semester hours (45 quarter hours) and who are under 22 years of age must submit the SAT results, and must also meet specific guidelines listed in the Freshman Admission Guidelines section.

Transfer applicants who are ineligible to return to their former institution must wait one year from the effective date of ineligibility before they can be considered for admission to VCU.

Transfer candidates to the School of the Arts are required to submit the Art Admissions Packet.

Each Virginia community college has been supplied with a VCU guideline document which gives transfer information about specific schools, departments, and programs at VCU. Students wishing to transfer should carefully read this bulletin and also consult with their community college counselor regarding the specific information in the VCU Transfer Guidelines for Virginia Community Colleges.

### Special Student Guidelines

An individual who wishes to continue study without formal admission to a degree program is classified as a special student. A special student is eligible to take courses for credit or to audit courses in the day and/or evening. **A special student planning to take only evening classes should contact the Evening College. All other students must submit their credentials to the Office of Admissions.**

1. A high school graduate, GED holder, college transfer student, or college *graduate* must submit an Eligibility

Card obtained from the Office of Admissions or the Evening College.

2. A transient college student must submit, before registration, a letter from the dean or registrar of his college stating that he is in good standing and that the dean or registrar is aware of his intention to transfer the credits back to the home institution.

The special student will be allowed three weeks from the date classes begin for the semester to furnish the Office of Admissions or the Evening College with the Eligibility Card. If the Eligibility Card has not been received by the deadline, the student's courses will be changed to audit status.

If the applicant has been suspended from VCU for academic reasons, eligibility for future enrollment must be re-established in accordance with procedures set forth in the Readmission Guidelines part in this section.

If the applicant has been suspended from another institution for academic reasons, he must wait at least one academic year before he may enroll at VCU.

### Readmission Guidelines

A degree-seeking student who withdrew in good standing is eligible to return to VCU in a degree program and must re-apply to the Office of Admissions if he has been out for at least one semester.

Readmission to a degree program brings the student under the bulletin in effect at the time of readmission.

Readmission applicants who wish to change their major into a program offered by the School of the Arts must submit the Art Admission Packet.

For information on readmission policies for students under suspension refer to Part V of the bulletin.

### Foreign Student Guidelines

Complete information and application materials for undergraduate foreign students may be obtained on written request from the Office of Admissions. Due to the additional time required for processing foreign applications, candidates are encouraged to apply well in advance of the foreign student application deadline. Applications

remaining incomplete six weeks prior to the date of registration are subject to cancellation. No foreign students will be allowed to register for classes until approved for registration by the U. S. Immigration and Naturalization Service.

The university requires foreign students to demonstrate a level of competency in the English language that is sufficient to meet admission requirements. Foreign students are therefore required to take the Test of English as a Foreign Language (TOEFL). A minimum total score of 550 is required for admission consideration. Some departments require a score exceeding this minimum. As the university provides no financial support for international students, each applicant must also present documented evidence of available financial support to cover educational and living expenses. These expenses are currently estimated at \$5,000 per academic year, exclusive of travel expenses. If the student is accompanied by a spouse, this estimate will increase by \$1,500.

Students who are permanent residents of the United States are generally considered under the same admission procedures and guidelines as those applied to U. S. citizens. However, the university does require detailed information concerning the applicant's immigration status. A form for this purpose will be provided to all permanent resident applicants upon receipt of an application for admission. Additionally, proficiency in English must be demonstrated. The method for determining proficiency in the English language will be dependent upon many factors such as length of stay in this country, amount of formal U. S. education, and the verbal score on the Scholastic Aptitude Test. The university reserves the right to require additional testing in cases where such information is deemed necessary.

### Special Services Program Guidelines

The university through a federal grant has developed the Special Services Program designed to assist students from low income areas. Selection is based primarily on indications of academic potential rather than previous academic performance. Teachers,

counselors, and persons affiliated with programs such as Upward Bound, Talent Search, Model Neighborhood, and the National Scholarship Fund for Negro Students are encouraged to recommend students to the program. Interested students should write the Special Services Program or Office of Admissions. The Special Services Office telephone number is (804) 770-3158.

### Other Admissions Candidates

Information on the Early Admission Program, Advanced Scholars Program, or other enrichment and acceleration opportunities are explained elsewhere in this section.

### Application Deadlines

Applications for **admission or readmission** for the fall semester are considered as long as there is space in the candidate's desired major, but in any event must be received no later than August 1.

Applications for **admission or readmission** for the spring semester must be received by December 1. Applications for the spring semester from a student who is enrolled during the fall term in another institution will be cancelled unless an official transcript or grade report is received by January 1.

Due to additional time required for the processing of applications from **foreign students**, the fall deadline for them is April 1. Applications from **foreign students** for the spring semester must be received by October 1. Applications remaining incomplete are subject to cancellation. For additional information see page no. 32, **Foreign Student Guidelines**.

A candidate applying as a **special student** may submit the Eligibility Card as late as the last day of registration for the semester in which the candidate desires to enroll. However, it is advisable to apply several weeks before the semester begins. The student must supply all material within three weeks after classes begin; see page no. 32, **Special Student Guidelines**, for additional information.

### ADMISSIONS NOTIFICATION

Applicants accepted to the university will be notified by letter as to the conditions of

their acceptance. Information on advisement and registration procedures, the medical history form, and housing information, if requested, will be included with the acceptance letter. When an applicant is tentatively accepted to the university, final transcripts are required. If the official final transcript has not been received by the date specified on the materials included with the acceptance letter, the student's enrollment status may be changed from "degree" to "special" with loss of credit and an "Administrative Hold" placed on future registrations.

The university reserves the right to release copies of admissions decisions and grade point records of enrolled students for institutional research purposes.

### **EVALUATION OF TRANSFER CREDIT**

An evaluation of transferable credits is made by the appropriate school or department after the accepted applicant's final transcript has been received by the Office of Admissions. A copy of the Statement of Advanced Standing is forwarded to the student prior to orientation and registration if time permits.

Acceptable course credits from other institutions will be recorded on the student's permanent record at VCU together with the grades earned if they are applicable toward a degree program. Accepted transfer credits are counted as hours earned toward the degree, but are not used in the computation of the student's VCU grade point average. Credits earned at other institutions carrying a grade of "D" generally are not accepted for transfer. In addition, transfer work from two-year institutions may not be applied to upper division requirements at VCU regardless of equivalent VCU course numbers.

Students accepted from the Virginia Community College System and other two-year institutions who have received an Associate in Arts or Associate in Science degree in a university parallel college transfer curriculum generally will qualify for junior status. Exact designation of this status will be determined after an evaluation of acceptable credits is made by the school of the university in which the student enrolls. Up to 50 percent of the total hours

required for graduation from the program into which the student is transferring may be transferred from two-year institutions, including not more than 50 percent in the major field of study. However, the candidate should realize that more than two additional years may be necessary to complete the degree requirements in certain curricula.

Credits earned in community college occupational or technical programs will be judged on their own merits to determine their applicability toward VCU degree requirements. In addition, many accredited institutions offer correspondence courses which may be considered for transfer credit.

Courses taken on the "pass/fail" or "pass/no pass" systems or courses taken for grades of "Satisfactory" or "Unsatisfactory" which receive earned credits and a "Satisfactory" grade (or comparable passing grade) from the transfer institution will receive equivalent semester credit. Transfer credit graded as "pass/fail" will not be included in the computation for determination of honors or high honors at VCU.

The final 30 credits required toward the degree must be completed in residence at Virginia Commonwealth University.

### **ENRICHMENT AND ACCELERATION OPPORTUNITIES**

#### **Honors Programs**

Special honors programs are offered in the following schools:

School of the Arts (Summer Session)

School of Arts and Sciences

School of Business

Please refer to those sections of this bulletin for further information.

An interdisciplinary honors course designed for superior freshmen in any program is available. Honors 195 emphasizes the interaction of discussion as well as independent study of such topics as "Models of Human Experience" and "Voices of Time and Space." See page 120 for further information.

#### **Early Admission Program**

The Early Admission Program permits an exceptional student the opportunity to en-

roll at the university after the completion of three years of high school. The program is available to students who demonstrate readiness for college by their high school record and SAT results, who are within two units of graduation, and who have the written approval of the high school principal to seek admission to college as a full-time undergraduate student. Candidates interested in this program should write the Director of Admissions for further information.

### **Advanced Scholars Program**

Qualified high school seniors from Richmond and surrounding area high schools may be permitted to carry college level courses at the university concurrently while completing the high school diploma. Students may select courses of interest and upon successful completion of the courses receive college credit. The program, available during the academic year and summer, provides the capable high school student an opportunity to: 1. experience college courses while still in high school, 2. obtain college level credit, and 3. complete courses frequently not available in a high school curriculum.

Candidates must be nominated and approved by the secondary school counselor. A maximum of 100 candidates will be accepted for each term and candidates enroll for no more than three courses per term.

As a guide to secondary schools, the following criteria for selection are considered:

1. Each candidate must have completed the junior year.
2. Each candidate must have achieved a total of 1,000 points on the College Entrance Examination Board SAT (100 on PSAT) or have maintained a "B" average.

Notification forms and other information may be obtained from the Director of Admissions.

### **Advanced Placement Tests/CEEB**

Qualified students who have taken college-level work in a secondary school may receive academic credit and/or advanced placement. Examinations which

determine advanced placement are the Advanced Placement Tests of the College Examination Board. Final determination of credit will be made after test results and examination booklets have been received by the dean's office in the School of Arts and Sciences and have been evaluated by the university. Accepted credits are counted as hours earned toward the degree, but are not used in the computation of the student's VCU grade point average.

### **College Level Examination Program (CLEP)**

The university is an authorized open CLEP Testing Center and awards college credit to VCU students who score satisfactorily on the College Level Examination Program tests. A maximum of 21 semester hours for the general examination and 30 semester hours for the subject examination may be granted in college equivalency. Accepted credits are counted as hours earned toward the degree, but are not used in the computation of the student's VCU grade point average.

Prospective candidates who desire information about this program and requirements for credit should write the Director of Admissions. Current VCU students interested in accelerating their academic program should consult with their advisor and the CLEP Administrator, Oliver Hall, 1015 W. Main Street.

### **University Credit by Examination**

Refer to Part VI, page 65 and Part VII, page 94 of this Bulletin.

### **Placement Tests**

The university provides placement testing to assist students in starting at the appropriate level in mathematics, foreign language, and freshman English. The orientation, advisement, and registration brochure sent to new students provides specific information about the curricula requiring these tests.

### **Servicemen's Opportunity College**

The university is a recognized Servicemen's Opportunity College (SOC) making it one of a network of institutions across the country which are responding to the unique

needs of servicemen seeking opportunities in higher education. For additional information, contact your educational officer or write the Office of Continuing Education, 301 West Franklin Street, Richmond, Virginia 23220.

### **Project AHEAD**

Project AHEAD (Army Help for Education And Development) was designed to expand the army's recruitment programs and stimulate in-service personnel to make greater use of army educational opportunities. However, the program is not merely an army project, but rather is operated by the participating colleges. Basically, a potential prospect is any individual who indicates an interest in continuing his or her educational pursuits. Initially, the prospect is provided information about colleges participating in the program plus a form to use in contacting the college in which he or she is interested. The program is also applicable in situations where the prospect is a potential or actual college dropout or has entered the army without having started advanced work beyond high school.

Upon receiving correspondence from the candidate, VCU will act as the serviceman's counseling agent and academic depository ("Home" institution) for credit earned as a result of military training or off-duty study. While on active duty, the student/soldier takes regular college courses through colleges active at most army installations. These courses are evaluated for credit and the credits are transferred back to the "Home" institution. Course selection is based upon periodic contact between VCU and the student/soldier.

After concluding active duty requirements, the student/soldier uses the G.I. Bill to complete his or her degree requirements at VCU.

For additional information, contact an army recruiter educational officer, or write VCU Veteran Affairs Office, 901 West Franklin Street, Richmond, Virginia 23284.

### **Military Service Courses**

The university grants credit for formal military service school courses offered by the various branches of the United States

Armed Services. The guidelines for granting credit for such courses include: 1. the positive recommendation of the Commission on Accreditation of Service Experiences of the American Council on Education as stated in the most recent edition of A Guide to the Evaluation of Educational Experiences in the Armed Services, and 2. the applicability of such credit to the student's degree program as interpreted by the department of the school in which the student seeks a degree. Accepted credits are counted as hours earned toward the degree, but are not used in the computation of the student's VCU grade point average. The student should consult with the assistant dean of the school for further details about the procedures for awarding credit for military service school courses.

### **VCU/University of Richmond Army ROTC**

A VCU/University of Richmond agreement permits a student to take advantage of the Army Reserve Officers Training Corps Program at the University of Richmond while studying at VCU. Registration as a special student with the Military Science Department at the University of Richmond qualifies a student for all benefits, including the opportunity to compete for a scholarship that pays all academic fees, tuition, books, and materials plus a \$100 tax free allowance each school month. A VCU student can earn a Regular or Reserve commission and participate in flight, ranger, or airborne training; all students receive \$100 per school month during the last two years. Seniors can compete for fellowships, as well as for law and subsidized medical programs. There is absolutely no service commitment during the first two years, and a student may discontinue participation after any semester.

ROTC course work will be considered as transfer credit upon the acceptance by the student's school.

For additional information write Military Science, University of Richmond, Richmond, Virginia 23173, or telephone (804) 285-6378.

### **Orientation, Advising, and Registration**

All new freshman and transfer students

and parents of freshmen admitted for the fall semester are invited to participate in the Summer Orientation, Advising, and Registration (SOAR) program. This program gives each new student the opportunity over a one and one-half day period during the summer to participate in small group discussions on college life, to learn about the services and various campus facilities, to meet with an academic advisor, and to register for classes. In addition, participation in the summer program offers a student the chance to stay overnight in a residence hall, take necessary placement tests, meet various faculty and classmates, and obtain answers to questions and concerns about the university.

Students are strongly urged to participate in this program in order to schedule classes at convenient times. By participating, students also receive more personal attention than is possible during the registration immediately prior to the beginning of the semester.

The offices of the deans and department chairmen, in cooperation with faculty advisors, endeavor to follow each student's academic progress. A student is assigned to a faculty advisor who, in addition to giving academic counseling, is available for advice on vocational and personal matters.

Students who are unable to attend the Summer Orientation, Advising, and Registration program will attend the orientation program held immediately prior to the beginning of the semester.

New freshman and transfer students and readmission students admitted for the spring semester will attend the orientation program held immediately prior to the spring semester.

### **EFFECTIVE BULLETIN**

The student completes the degree program listed in the bulletin effective at the time of entering or re-entering the program. Readmission students, transfer students, and students who change their majors, for example, will come under the provisions of the bulletin in effect at the time of the readmission or change of major, rather than the earlier one. Students with difficulty under this provision should contact the dean of the school in which the program is offered.

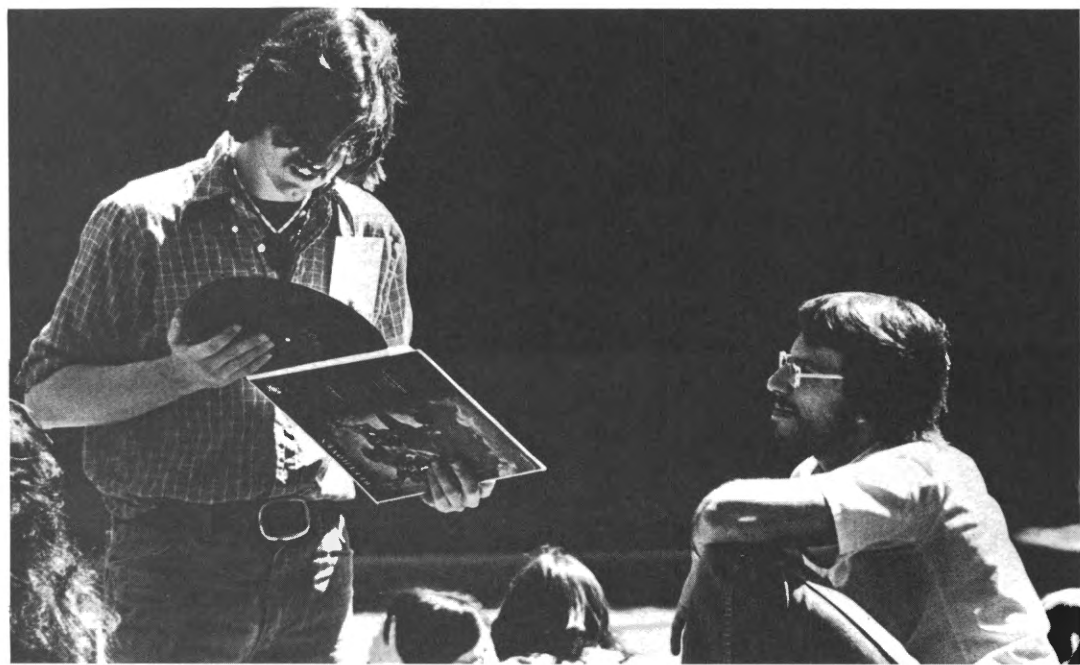
Students in continuous enrollment may choose to stay with their original bulletin or change to a later one, at their option, but must satisfy all requirements of one.

### **GRADUATE SCHOOL ADMISSION**

A university graduate bulletin describing requirements and procedures for admission to graduate programs will be sent upon request. Address all inquiries to the Director of Graduate Affairs, Office of Research and Graduate Affairs, 901 West Franklin Street, Richmond, Virginia 23284. Refer to Part I of this bulletin for a listing of graduate programs.

### **MCV Campus Admission**

Students who have completed the necessary college prerequisites for the health-related professional programs offered on the MCV Campus should request application materials from the Office of Admissions, Medical College of Virginia, Virginia Commonwealth University, Box 163, MCV Station, Richmond, Virginia 23298. Students interested in the School of Medicine should write Box 636.





# PART III—Expenses and Financial Aid

## FEES AND EXPENSES

It is expected that students shall pay all applicable fees listed in this section prior to registration for each semester. Students are reminded, however, that the university reserves the right to revise or alter all fees, regulations pertaining to student fees, and fee collection procedures whenever such revisions or alterations are deemed necessary.

## APPLICATION FEE AND DEPOSITS

**Application Fee.** Each student applying for admission or readmission to the university shall pay a \$10 non-refundable fee. This fee shall accompany the application form sent to the Office of Admissions.

**Dormitory Deposit.** A \$50 dormitory deposit is also required upon receipt of official notification of acceptance. See page 42, Security Deposit and Damage Fee section.

## TUITION CHARGES AND PAYMENT DATES

Undergraduate Full-time:

	Virginia Resident	Non-Virginia Resident
First Semester—by July 31	\$365	\$ 730
Second Semester—by December 15	\$365	\$ 730
TOTAL TUITION PER ACADEMIC YEAR	\$730	\$1,460

The tuition and fees shown in this section are for the academic year 1977-78. Educational costs are subject to similar price adjustments found in the costs of other commodities; therefore, fees may be changed for the academic year 1978-79.

**Note:** The above tuition charges apply to all full-time students. Full-time students are those students who are enrolled for 12 or more credits in a given semester. An academic year includes two semesters.

**Definition of Virginia Resident:** Section 23-7 of the Code of Virginia states: "No person shall be entitled to the admission privileges, or the reduced tuition charges, or any other privileges accorded only to domiciliaries, residents or citizens of Virginia, in the state institutions of higher learning unless such person is and has been domiciled in Virginia for a period of at least one year prior to the commencement of the term, semester, or quarter for which any such privilege or reduced tuition charge is sought, provided that the governing board of such institutions may set up additional requirements for admitting students."

**Note:** Students desiring a change of their residency status from out-of-state to in-state for tuition purposes must go to the Office of the University Registrar and formally apply for a change. Residency decisions will be rendered for the semester in which the



application is submitted. Applications must be received prior to the ninth week of classes to be effective for that semester.

**Undergraduate Part-time:** Part-time undergraduate Virginia resident students shall be charged \$32 per semester credit in day and evening classes.

Part-time undergraduate non-residents shall be charged \$64 per semester credit in day and evening classes.

**Graduate Full-time and Part-time:** All fees pertaining to graduate students are listed in the graduate bulletins.

### SPECIAL CHARGES

Because of specialized programs, various schools and departments charge each student additional fees to cover special materials, equipment breakage, etc.

The following minimum semester fees are charged for those students registering in the specified courses:

#### School of the Arts:

All full-time majors enrolled in the School of the Arts are charged a comprehensive fee of \$35 each semester. Part-time majors are charged \$17. Non-art majors enrolled in any of the numerous courses which require an additional outlay for materials will be billed for those individual fees by the Office of Student Accounts.

**Department of Music:** All full-time music majors are charged a comprehensive fee of \$140 each semester. Part-time majors taking 7 to 11 credit hours are charged \$70. Music majors taking less than 7 hours are charged the \$17 part-time art fee.

**Music—Private lessons.** Refer to page 70.

Numerous courses require an additional outlay for materials, and such fees are collected within the departments.

The fee for undergraduate credit by examination is \$5 per credit.

**Department of Chemistry:** Each student is charged for breakage incurred. Regular safety glasses are required. Failure to check out of laboratory, upon withdrawal or for other reasons, will incur a charge of \$5 billed from the Office of Student Accounts.

**School of Community Services:** A laboratory fee will be charged in the following classes: CSE 241—\$10, CSE 242—\$10,

REC 331—\$15, REC 332—\$15, URS 201—\$15.

**School of Education: EDU 407—\$10 fee.**

### Non-recurring Fees (undergraduate)

Application Fee .....	\$10
Graduation Fee (includes diploma and use of cap and gown) .....	
Bachelor's degree .....	14
Associate degree .....	12
Late Registration Fee .....	10
Room Change Fee .....	5
Transcript Fee .....	1 each
Excess Credits Fee	
(Students enrolled for more than 19 credits per semester. Courses taken on an "audit" or "non-credit" basis will have an equivalent charge as those taken for credit.)	
Virginia Resident .....	32 per semester credit
Non-Virginia Resident .....	64 per semester credit
Identification Card Replacement Fee .....	3

**Student Activities Fee:** All full-time undergraduate students are required to pay a comprehensive fee of \$9 per semester to support student activities scheduled throughout the school year (concerts, plays, publications, etc.).

All undergraduate part-time students (those carrying 7 through 11 credits) are required to pay a \$4.50 per semester comprehensive student activity fee. Of this amount, 50 cents is allocated to the Dean of Student Life Contingency Fund.

**Athletic Fee:** All full-time undergraduate students are required to pay a fee of \$14 per semester in support of the inter-collegiate athletic program.

All undergraduate part-time students (those carrying 7 through 11 credits) are required to pay a \$7 per semester athletic fee.

**Facilities Fee:** All full-time undergraduate students are required to pay a fee of \$30 per semester which will be used to renovate existing student leisure time facilities and to construct, over the next several years, additional physical recreation facilities and a central University Commons Building.

This fee is included in the per credit hour tuition charges for part-time students.

### FEES FOR RESIDENCE HALL STUDENTS

The charges for matriculation, tuition,

and other instructional services are the same for commuting students. Other charges for residence hall students for the academic year:

<b>Room Rent</b>	
Rhoads Hall and Ritter-Hickok .....	\$760
Johnson Hall .....	730
Other Residence Halls .....	710
Self-sufficient apartment units .....	800
Room Deposit and Damage Fee .....	50
Laundry Fee (required of all residence hall students) .....	32
Infirmary Fee (required of all residence hall students) .....	52
<b>Board Fee (required of all residence hall students)</b>	
21 meals-per-week (required of all freshmen residence hall students) .....	680
15 meals-per-week .....	650
<i>A la carte</i> cafeteria (approximately) .....	800
(The meal plans are described more fully in the section below.)	

## ROOM AND/OR BOARD FEES

**Room Rent:** When a student receives his or her acceptance letter, a room reservation card will be enclosed, if requested. If residence hall space is required, the student fills out the card and returns it with \$50 deposit. The student is notified of his or her placement in a residence hall or of being placed on a waiting list for residence hall space.

Room rent is payable at the time tuition and other fees are due. Rooms in residence halls are rented for the entire academic year of nine months. Exceptions may be made for students who complete their course of study at the end of the first semester. Only one semester room rent is due prior to each semester.

No refund or rebate of room deposits is made for any cause after the dates for closing room reservations; subletting is not permitted.

**Board:** All students who live in university residence halls are required to take their meals in university dining facilities unless they live in self-sufficient apartment units. Students have the option of subscribing to either the 21 or 15 meals-per-week plan. The 15 meals-per-week plan provides for a student to take any 15 meals during scheduled meal hours in a given week.

**Cafeteria:** Students living off-campus are

not required to subscribe to the university board plan but may subscribe to a 21 or a 15-meal-per-week plan to the extent that space is available. Students who choose not to subscribe to either food plan may use the cafeteria on a pay-as-you-go basis.

Summary of semester charges for residence hall students using the full-board plan (in addition to application fee and room deposit):

Tuition .....	\$365
Room Fee (minimum) .....	355
Meals (minimum) .....	340
Laundry Fee .....	17
Infirmary Fee .....	26
Student Activity Fee .....	9
Student Athletic Fee .....	14
Student Facilities Fee .....	30

\$1,156

The \$1,156 is due July 31 for the fall semester and December 15 for the spring semester.

Contracts for room and/or board (except in cases involving contracts initiated during the spring and summer terms) are for a two semester period. Contractual agreement is implied when a student accepts university room and/or board arrangements. If a resident voluntarily withdraws from the university residence halls without clearance from the Office of the Dean of the Student Services but remains enrolled at the university, he will be responsible for full room and board fees for remainder of the contract period. Subletting is not permitted.

Exceptions to the above policy can be made only by the Office of the Dean of Student Services.

## INCIDENTAL EXPENSES

It should be stressed that a student will incur at college not only those expenses for which he is billed by the school, but will, in addition, pay for clothing, books, supplies, travel, and many out-of-pocket expenses.

A student should therefore plan to make allowances for such expenses in figuring the cost of each year at the university.

## INSURANCE

The university is not responsible for

accidents occurring to students in connection with class, laboratory, shop, field work, athletics, student activities, travel, or other activities. However, the university offers to its students approved insurance providing substantial benefits at group rates. The insurance extends for a 12-month period beginning September 1, or from the beginning of second semester to the next September 1, and includes coverage for accidents, and hospital, medical, surgical, and other benefits for illnesses. Married students may wish to enroll their spouse and children. The insurance is written through North America Assurance Society. The university recommends but does not require that all students enroll in the approved Student Group Insurance. All students are required at or before registration to complete a card stating that they do or do not wish to participate in the group insurance plans. For further information, contact the Student Accounts Office, Virginia Commonwealth University, 901 West Franklin Street, Richmond, Virginia 23284.

Insurance to cover students participating in certain intercollegiate sports is arranged through the athletic department.

A small comprehensive fire, water, and theft insurance policy on student property is recommended, as the university is not responsible for losses due to fire or theft or water damage.

#### **SECURITY DEPOSIT AND DAMAGE FEE**

A Security Deposit and Damage Fee of \$50 will be required of each student completing an agreement for residence hall accommodations. This fee is not applicable to the room and board charges but remains on deposit to be applied toward possible room damage. As such, the fee shall be returned minus any damage charges, according to the following conditions:

1. If application for room is canceled in the Office of the Director of Housing within the time limits specified in residence hall contract.
2. When a student at the termination of his contract severs his connection with the university or the residence hall *provided he is not required by univer-*

sity regulation to reside in university residence halls.

A resident forfeits his Security Deposit and Damage Fee if he withdraws for any reason from the university residence halls before the termination of his contract.

#### **REFUNDS**

A full- or part-time day student who withdraws in good standing shall be entitled to a refund of a portion of his tuition, room, and board fees for the semester in which he is currently enrolled. All other fees are non-refundable.

**Request for Refund.** A request for a refund must be made in writing to the Office of Student Accounts before said request can be considered. Exceptions to the refund policy are to be made by the Office of the Dean of Student Services. The following policy governs the refund of tuition, room, and board fees:

1. A student who fails to register or is denied permission to register will be entitled to a full refund of tuition, if paid in advance. Room and board, if paid in advance, will be computed on an individual basis.
2. A student will be entitled to a refund of 80 percent of his tuition, room, and board fees upon withdrawal before the end of the first week of the term (seven consecutive calendar days beginning with first day of the semester, i.e. August 29, fall semester; January 9, spring semester) and a decrease of 20 percent each week thereafter up to and including the fourth calendar week. **NO AMOUNT WILL BE REFUNDED FOR WITHDRAWAL AFTER THE FOURTH CONSECUTIVE CALENDAR WEEK OF THE TERM.**
3. A student will not be entitled to a refund of room fees if he voluntarily withdraws from the university residence halls but remains registered for any course or courses at the university unless clearance is granted through the Office of the Dean of Student Services.

The actual date of withdrawal will be certified by the Office of the University Registrar; and refund, when appropriate, will

be computed based on that certified date. Refund processing can take from six to eight weeks.

### **DELINQUENT ACCOUNTS**

The university will not issue a degree, transcript of grades, or grade reports to any student who has not paid all charges in full. Students whose accounts are not paid in full may not be admitted to final examinations at the end of semesters.

A waiver is placed on accounts that reflect a balance that is supported by a scholarship authorization on file in the Office of Student Accounts, however, students are reminded that they may be ultimately responsible for any unpaid balance on their account.

### **Dishonored Checks**

A student, parent, or guardian who presents a check for payment of tuition and fees to Virginia Commonwealth University and has the check returned for any reason by the bank as an uncollected item will have 10 calendar days from the date of notification by the Office of Student Accounts to clear the check. If not cleared within this period, the student will be automatically suspended and may not attend classes until he has been officially reinstated by the Business Office. A charge of \$5 will be levied against the maker of all dishonored checks with the exception of those for tuition. A \$10 fee will be levied against the maker of a dishonored check for tuition.

After two weeks from the date of suspension, a student suspended because of a dishonored check may not be reinstated for the semester. Applications for reinstatement are to be made at the Office of the University Registrar.

### **Payment of Fees**

A student who fails to meet payments when due will be automatically suspended and may not attend classes until he has been officially reinstated and has paid all accrued fees, plus a \$10 late payment charge. After two weeks from the date of suspension, a student suspended for failure to meet payments when due may not be reinstated for the semester. Applications for reinstatement

are to be made at the Office of the University Registrar.

### **FINANCIAL ASSISTANCE TO STUDENTS**

The university maintains a Financial Aid Office which offers financial assistance, when possible, to deserving and qualified students in an effort to help these students overcome financial obstacles relative to the attainment of a degree.

### **INSTALLMENT PAYMENT OF FEES**

The university does not offer a financial aid plan for direct payment of semester charges on an installment basis. For those parents who wish to pay college costs in installments, the university recommends application to The Tuition Plan, Inc. or your local bank. The Tuition Plan makes money available only for those expenses for which a student is billed by the university. A descriptive brochure may be secured from The Tuition Plan, Concord, New Hampshire 03301.

### **FINANCIAL ASSISTANCE**

Students are advised that financing their education is the responsibility of the student and his or her family. A variety of loans, grants, scholarships, and employment is available to help those students who can demonstrate a financial need for assistance. Because the level of federal, state, and university funding changes year to year as does the number of needy students, no guarantee can be made on the amount of financial assistance given to each student. However, the timeliness of application submissions and the thoroughness of a student's exploration for all forms of financial assistance eliminates the lack of money as an obstacle to the pursuit of one's educational goal.

Students are advised to total both direct educational costs (tuition, fees, books, and supplies) and indirect education or living costs (room, board, transportation, and personal expenses) in order to *determine the severity of their financial need*. Therefore, if a student subtracts all family contributions from the total cost and the resultant need is

greater than \$200, then an application for financial aid should be considered. The following living cost chart will assist you in this determination. (See chart, page 46.)

### General

The Financial Aid Office provides advice and counseling to students with a financial problem. Short term emergency loans are sometimes used to assist students with immediate financial difficulties generally of a personal nature. However, the main purpose of the office is to provide students with long term financial resources which when added to their personal or family resources allows a student financial access to the university.

Students seeking financial assistance must apply annually, be a citizen or permanent U.S. resident, be admitted to or be in good academic and financial standing with the university, and be a full-time or half-time graduate or undergraduate. All financial aid offered from or through the office is based on a student's demonstration of need. The College Scholarship Service Needs Analysis System is used to make this determination.

Information and application forms are available at the Financial Aid Office, 915 West Franklin Street, Richmond, Virginia 23284. Applications are accepted at any time; however, the following schedule will give the student the best opportunity to secure all forms of aid.

Application Period	Study Period
December through August	Fall and Spring Semester
October and November	Fall Semester only
	Spring Semester only

Students are advised that they have the best opportunity to secure all forms of aid if they apply by the Priority One deadline of February 15. A Priority Two deadline is established for May 15. Applications received after this date are likely to result in only partial funding due to the limited dollar resources.

All university aid funds are awarded based on the submission of the Standard Aid Application. This application consists of two parts—the University Aid Form and the

Financial Aid Form. This application is sufficient to apply for all university aid programs listed below.

## UNIVERSITY AID PROGRAMS

### College Work-Study Program (CWSP)

This is a joint federal and university program that permits students to work for the university or local agencies. An hour's pay equals one hour worked. Placement is made by this office. Awards range from \$200 to \$2,000 per year.

### National Direct Student Loan Program (NDSL)

This is a joint federal and university program that loans from \$200 to \$2500 per year to students and is repaid after graduation at three percent interest.

### Supplementary Educational Opportunity Grant (SEOG)

This is a joint federal and university program that permits grants from \$200 to \$1,500 to be given to students who have the highest need. This award is always combined with other aid on a matching basis.

### Virginia Undergraduate Grants (VUG)

This is a university program of grants ranging from \$200 to \$800 for undergraduates who have high financial need.

The Financial Aid Office also assists students with the application for three other major programs. Students who seek aid from the university must first seek aid from the following university assisted programs. A separate application is required.

## UNIVERSITY ASSISTED PROGRAMS

### Basic Educational Opportunity Grant (BEOG)

This is a federal program of grants to undergraduates from \$100 to \$1,400 based on financial need. Applications are available at high schools, libraries, colleges, and post offices, and the Financial Aid Office.

**College Scholarship Assistance Program (CSAP)**

This is a state of Virginia program of grants to state resident undergraduates from \$200 to \$800 based on financial need. Applications are available at most Virginia high schools, colleges, and the Financial Aid Office. The deadline is March 31 for the upcoming academic year.

**Guaranteed Student Loan Program (GSL)**

This is a federal and private loan program which offers loans from \$200 to \$2,000 per year to be repaid after graduation at seven percent interest. Applications are available at participating banks, savings, and loan institutions, and credit unions where you have an account established.

**Special Programs**

The Financial Aid Office administers a number of specialized programs which have additional eligibility criteria. The office will make special announcement of the programs and application procedures.

**Law Enforcement Education Program (LEEP)**

This is a federally sponsored program of grants and loans for students who are currently employed at an eligible law enforcement agency or for students with this career intention. Information and applications are available at the Financial Aid Office.

There are some other financial assistance sources listed below for which some students are eligible.

**Veterans Benefits**

Eligible veterans of military service in the United States Armed Services are eligible to receive monthly grants. Also, some widows and orphans of eligible veterans are eligible for benefits. Information is available at the Campus Office of Veteran's Affairs, Room 306, 901 West Franklin Street.

**Departmental Scholarships**

Several schools and departments of the university make scholarships available for those students in or admitted into those departments. Eligibility may or may not be based on financial need and other selection criteria are generally used. Inquiries should be directed to the dean or department chairman's office.

**Miscellaneous Resources**

Many governmental organizations have special aid programs for qualifying students. State higher education assistance agencies, Social Security Administration, and vocational rehabilitation programs are just a few. Additionally, many churches, fraternal organizations, civic groups, and businesses may offer grant or loan assistance. Each student should seek out every possible source of financial assistance.

**VIRGINIA COMMONWEALTH UNIVERSITY**  
**1977-78 Student Living Cost Allowances**

These are Nine Month Allowances Based on Data  
 From the Bureau of Labor Statistics and College  
 Scholarship Service's Student Surveys.

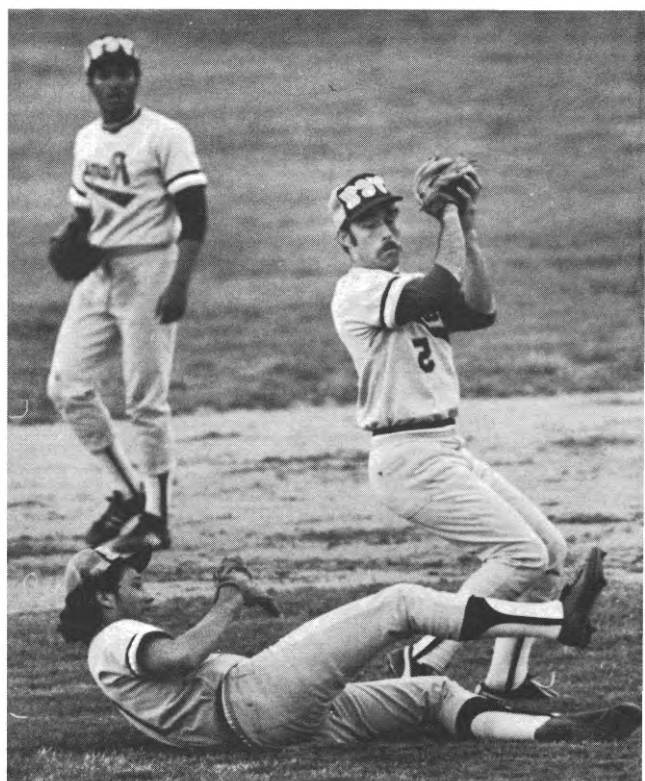
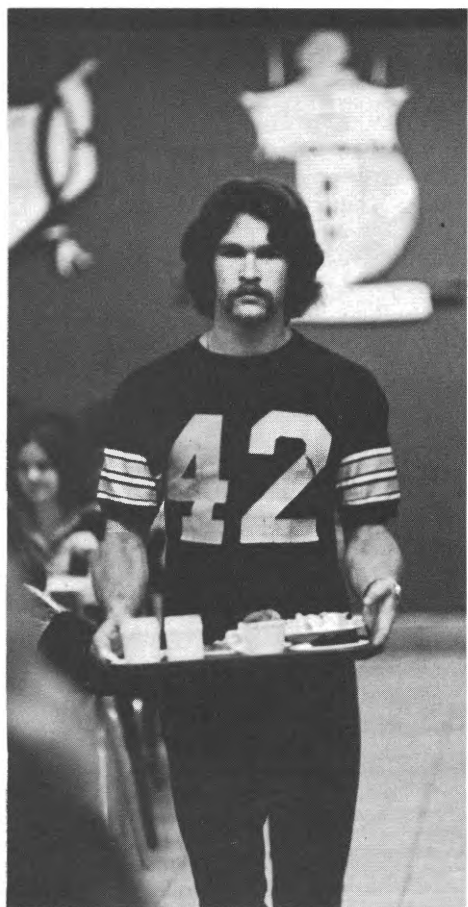
Type/Item	OFF-CAMPUS RESIDENCE							
	Living with Parents	Campus Resident	Single	Single Plus One Dependent	Single Plus Two Dependents	Married	Married Plus One Dependent	Married Plus Two Dependents
Room/Rent	\$ 0	\$ 770	\$ 770	\$1,760	\$1,800	\$1,960	\$2,100	\$2,300
Board/Food	\$ 250	\$ 780	\$ 780	\$1,040	\$1,425	\$1,440	\$1,825	\$2,220
Transportation	\$ 400	\$ 400	\$ 400	\$ 500	\$ 625	\$ 600	\$ 625	\$ 750
Personal Expenses	\$ 350	\$ 450	\$ 450	\$ 700	\$ 950	\$ 900	\$1,050	\$1,250
Living Cost Total	\$1,000	\$2,400	\$2,400	\$4,000	\$4,800	\$4,900	\$5,600	\$6,500

1. Add \$750 per each additional dependent.
2. These budgets are used to determine total student cost.

**DETERMINATION OF COST AND FINANCIAL NEED**

Tuition \$ _____								
Fees \$ _____								
Books \$ _____								
Supplies \$ _____								
	Plus	Student Living Costs	Equals	Total Educational Costs	Less	Total Family Contribution	Equals	Financial Need
TOTAL \$ _____		\$ _____		\$ _____		\$ _____		\$ _____







## **PART IV—Student Life and Services**

People learn as whole beings from total environments. The total university experience affects an individual's life, and all aspects of living in a university community are learning experiences. The Offices of Student Life and Student Services are deeply concerned both with the learning that occurs in classrooms and laboratories and with the learning that results from all the other experiences of membership in a university community. Our broad range of programs and services results from serious efforts to supplement, complement, and diversify educative and developmental experiences on the campus. These functions vary in formality, content, and setting and are usually student centered. They are also designed to promote the broadest possible development of excellence and integrity in both the individual and the university as a societal institution.

The Offices of Student Life and Student Services have three major areas of responsibilities: administration, student services, and student development. The administrative responsibilities are those functions necessary to the operation of the university. Student services are those functions that assist or aid the student in attainment of his education. Student development includes the functions of attempting to provide

opportunities and an environment that enable students to make the most of their potentialities.

### **ORIENTATION**

To afford each new freshman and transfer student the best possible opportunity to make his association with the university beneficial, the university provides a Summer Orientation, Advising, and Registration Program (SOAR). It is to the student's advantage to take part in this program, which utilizes small group processes over a one-and-one-half day period, allowing individual attention to the student's needs. The program is designed to increase the student's awareness of the university's programs, services, and facilities and thus increase his ability to utilize these facets for his greatest benefit. Additionally, during this period the student is advised and registered for his first semester of classes.

After acceptance to the university, the student will be sent detailed information for his attendance in the SOAR program. Generally SOAR material is mailed in late spring. The student should complete and return any materials requested within the time allotted so that he will not lose his opportunity to attend Summer Orientation, Advising, and Registration.

Included in the SOAR program is a program for the parents that is especially helpful for their understanding of the university and its future relationship to their son or daughter.

Although there are fall and spring orientations held, it is to the advantage of the freshmen and transfer students entering in the fall semester to attend SOAR. The university can only serve those who can take advantage of the programs that are presented for their participation. Prior to the opening of each semester there is an orientation program designed for late-admitted freshman and transfer students.

## STUDENT SERVICES

### Student Housing

Living accommodations on campus are provided for the convenient housing of students and to further the educational objectives of the university. The conditions under which students work and live affect their habits of conduct, patterns of thought, and values in later professional and private life. On-campus housing facilities provide a diversity of physical structures to help meet the housing needs of students. Approximately 2,500 students live in university residence halls which vary in capacity from 20 to 700 and in style from old homes to modern, high-rise residence halls.

Essentially, each student is expected to regulate his own life in accordance with reasonable standards of sound judgment and good taste. The university does not attempt to define sound judgment or good taste precisely; rather, a few regulations are made and a *special* effort is exerted to give full consideration to unique personal circumstances when individual problems arise. As a matter of philosophy, the established policies for control of this important aspect of campus life seek to emphasize the welfare of the student rather than rigid control.

Since on-campus residence hall accommodations are limited, acceptance for admission to the university does not guarantee housing facilities to the new student.

Rooms in the residence halls are rented for the entire academic year of nine months

unless other arrangements are made. The student, parent, or guardian contracts to pay the rent for this period. Assignment to space in university residence halls does not guarantee the occupant that housing will be available to him for his entire tenure at the university.

(See the Room and Board Fees section of the Expenses and Financial Aid part of the bulletin.)

All rooms are adequately furnished, but some students may wish to add personal touches and conveniences of their own. As the buildings vary in age and occupancy, it is best to wait until arrival to decide on the extra furnishings. Students should provide their own pillows, bedspreads, and blankets. Towels and bed linens are furnished weekly. Coin-operated washers and dryers are located in each building.

The university does not control or monitor off-campus housing facilities. Good quality apartments and rooms are limited, and interested students should make arrangements early. The housing offices on both the Academic Campus and the MCV Campus will provide assistance in the location of non-university controlled residences which rent to students. Housing on this list is available on a non-discriminatory basis. It is also advisable for the student personally to inspect off-campus accommodations before contracting. Classified sections of the Richmond newspapers are often helpful in locating nearby available housing.

### Food Service

All undergraduate students living in university owned and/or operated residence halls are *required* to participate in the university board plan for meals unless they are living in self-sufficient apartment units. This policy makes the board agreement *mandatory* and *automatic* for all undergraduates choosing to live in university housing unless specifically excused by the Dean of Student Services after written appeal.

Students may choose the 21 or 15 meals-per-week plan. The 21 meal plan may not be reduced during the term of the agreement.

The cafeteria is open to commuter stu-

dents for all meals on a contract or individual basis. Other eating facilities are available in the general area.

A contract for food service (except in cases involving contracts initiated for the spring or summer terms) is for a two semester period. Exceptions are cleared through the Office of the Dean of Student Services only.

### **Health Service and Insurance**

The University Health Service on the Academic Campus is available to all students in emergencies, and the full health service is available to all who pay the University Health Service fee. Dormitory residents are required to subscribe to the health service which maintains an infirmary, nursing care, and consultation service with the university physicians as well as an excellent referral system to the medical community. Non-dormitory full-time students may also subscribe to the health service by payment of the prescribed health service fee.

The university is not responsible for accidents occurring to students in connection with class, laboratory, shop, field work, athletics, student activity, travel, or other activities. However, the university makes available to students approved insurance providing benefits at group rates through North America Assurance Society. For a brochure, write to the Office of Student Accounts, VCU, 901 West Franklin Street, Richmond, Virginia 23284.

### **Counseling Service**

The purpose of the VCU Counseling Center is to counsel any student desiring vocational, academic, or personal help. The Counseling Center's objective is to promote self-understanding and self-direction for the individual student by giving the student the opportunity to see realistically his abilities, capabilities, interests, and needs in his social and academic surroundings. The Counseling Center will, when appropriate, refer students to other agencies.

### **Ask-it Information Service**

Located in Shafer Court, the Ask-It information booth is open Monday through

Friday. The student volunteer on duty at the booth can answer questions and provide information on all aspects of the university. New students are encouraged to utilize this service by visiting the booth or calling Ask-It at 770-3195.

### **Career Planning and Placement**

The primary function of the Office of Career Planning and Placement Services is to assist students of all disciplines and all degree and class levels to find suitable employment. However, this office is engaged in a number of other services.

Counselors are available for consultation about specific career opportunities and planning a job search, as well as for more general counsel to assist in the formulation of career directions. This service is available to regularly enrolled students of the university, and alumni of the university. Included in the service is the Campus Interview Program. Representatives of business, industry, government, and education visit the campus each year to interview students of all disciplines and degree levels and to discuss a diversity of employment opportunities with interested students. In addition, representatives of various universities schedule interviews with graduating students interested in pursuing advanced studies in graduate professional disciplines. The Office of Career Planning and Placement Services also receives numerous listings of full-time career opportunities from many organizations that do not participate in the Campus Interview Program. Students and alumni are referred directly to the employer's offices to learn more about these opportunities. The office also maintains a career resource library containing career information, a graduate school resource library containing catalogs, and information about graduate study opportunities, and an employer resource library containing employer information and data. Related items of interest are available to all students considering career alternatives.

The office also provides a job listing and referral system for currently enrolled students who are seeking part-time, temporary, or vacation employment. Jobs are available in the clerical, sales, food service, and

unskilled labor areas. Frequently career-related opportunities are also available for students seeking employment of a limited duration.

All seniors and graduate students are strongly urged to register formally with this office.

### **Student Activities**

One of the advantages of being a member of a university community is that students and faculty members are surrounded by countless opportunities for self-development and expression, not only in the classrooms but outside, in the evenings, and on weekends. The university has excellent programs in music, art, and drama. It engages visiting scholars who lecture on special areas of interest within academic fields. The Lecture Committee sponsors several speakers for the Convocation Series. The Concert Committee sponsors many on-campus concerts and dances. Additionally the Richmond metropolitan area provides a wide variety of cultural and recreational opportunities.

### **Organizations**

More than 120 student clubs and organizations exist on the Academic Campus, reflecting the social, recreational, educational, political, or religious interests of the student body. Various types of organizations include fraternities and sororities, departmental professional and interest groups, service-oriented groups, and numerous special interest organizations representing a wide variety of activities and interests.

A list of registered student organizations, policies affecting these groups, and information and materials necessary to form new organizations are available in the Office of Student Activities.

## **STUDENT MEDIA**

### **Commonwealth Times**

Students write and edit the *Commonwealth Times*, a weekly campus newspaper containing news, features, editorials, and reviews of timely topics. The offices are located at 916 West Franklin Street.

### **WVCW**

The student-operated radio station uses a carrier current line to some residence halls and cafeterias. Station facilities are located on the third floor of the Student Media Center at 916 West Franklin Street.

### **Richmond Arts Magazine**

A student literary magazine is published which offers creative writing opportunities for students. The offices are located on the third floor, 916 West Franklin Street.

## **INTERCOLLEGIATE ATHLETICS**

All undergraduate students at VCU are eligible to compete in these sports subject to rules and regulations governing intercollegiate competition. Freshmen and varsity athletes are not excused from required physical education and cannot meet their department requirements by being members of a varsity team. Varsity athletes who are members of a physical education class involving the same activity as the varsity sport are excused from the class during that portion of the unit.

Intercollegiate teams include: baseball, basketball, women's field hockey, golf, gymnastics, women's tennis, swimming (men's and women's), wrestling, women's basketball, and women's volleyball.

### **Intramural Sports**

All undergraduate male and female students registered in the university who are physically eligible may participate in any intramural activity, subject to the approved intramural rules and regulations. The intramural program supplements and complements the required program of physical education as a noninstructional laboratory experience that allows students to pursue formal competition in organized tournaments. Entries are submitted to the intramural office on or prior to the closing entry date for each activity. Both team and individual point and award systems are emphasized. Tournaments are held in the following activities: flag football, tennis, handball, squash, table tennis, basketball, paddleball, basketball freethrow, badminton, volleyball, wrestling, softball, and swimming.

### Club Sports and Recreational Activities

In recent years various club sports and recreational activities have become popular on the campus. Presently included among these groups are: tennis, football, rugby, table tennis, weight lifting, and an outing club. The activities of all such groups are coordinated by the Recreational Activities Board.

### STUDENTS AND UNIVERSITY GOVERNANCE

The governance system of the university is headed by the Board of Visitors, a 15-member body appointed by the Governor of the Commonwealth of Virginia. This group has the legal authority and responsibility for Virginia Commonwealth University as established by legislation passed by the General Assembly of the Commonwealth of Virginia.

The Board of Visitors selects a president who, through the administration of the university, administers the institution's day-to-day business. The president is responsible to the Board of Visitors, and the Board of Visitors determines major policies for the university.

In 1969, the University Assembly was created to help propose major policy matters for presentation to the Board of Visitors. The University Assembly consists of 15 administrators, 15 faculty members, and six students; the president of the university is the chairman.

The University Assembly has three sub-groups called councils. They are the Council on Faculty Affairs, the Council on Academic Affairs, and the Council on University Student Affairs. The Council on University Student Affairs consists of nine students, three faculty members, and three administrators. Major policy questions concerning student life come through this council and are considered for presentation to the University Assembly, which in turn makes recommendations to the Board of Visitors through the President.

The Council on University Affairs has created five sub-groups: the Recreational Activities Board, the Media Board, the Appropriations Board, the Program Board,

and the Appointments Board. The membership of these groups is approximately the same: six students, two faculty members, and one administrator. The Council on University Student Affairs and its sub-groups are the major policy making bodies for the non-academic student life areas.

### ANNUAL HONORS AND AWARDS CONVOCATION

Each year in the spring, an Annual Honors and Awards Convocation is held to honor students who have made outstanding achievements in the areas of scholarship or leadership and service. Approximately 200 students and student organizations are recognized each year at the convocation which is attended by university administrators, faculty members, and families and friends of the students being honored.

### RULES AND REGULATIONS

Each member of the university community has certain responsibilities, rights, and privileges. These are stated in some detail in the *Virginia Commonwealth University Rules and Procedures*, and each student is responsible for being familiar with provisions of this document. *The Rules and Procedures* are printed in the campus calendar and are also available at the Student Life Office. This document also provides for the process whereby disciplinary action, including separation from the university, may be taken against a member of the university community as a result of behavior which is in violation of the prohibited conduct as stated in the *Rules and Procedures*.

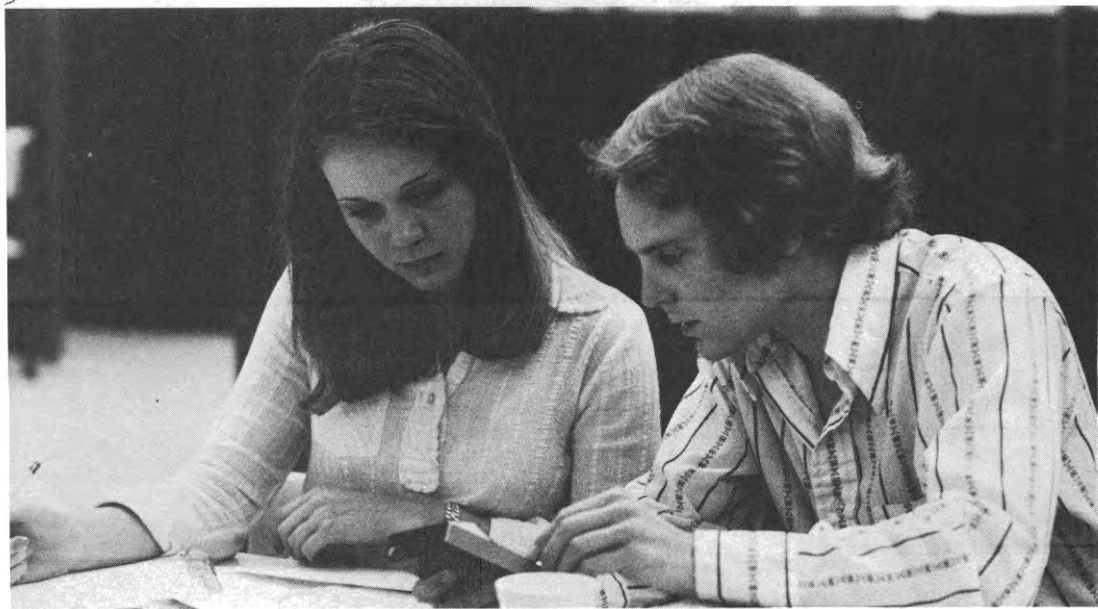
### STUDENT IDENTIFICATION CARDS

Students should carry their I.D. cards with them at all times and be ready to show them to any authorized university official who might request their identification. Students may obtain or validate their I.D. cards during registration. The cards are required for numerous university functions, such as borrowing books from the library. Any student who loses an I.D. card should apply to the Office of the University Registrar for a replacement. There will be a charge for replacement.

**AUTOMOBILES**

On-campus day parking is not available to students at this time. Students may apply for evening parking in university lots at the Parking Office at 920 West Franklin Street. The absence of student parking on-campus during the daylight hours, together with

extremely limited off-campus parking, results in the recommendation that residence hall students should not attempt to bring their automobiles to Richmond. Unauthorized automobiles parked on campus will be removed at the owner's risk and expense.





## **PART V—Academic Regulations and General Degree Requirements**

### **ACADEMIC STATUS COMMITTEE**

The Academic Status Committee considers petitions for waiver of the academic regulations presented in this section. A student desiring to appeal an academic regulation should contact his advisor, department chairman, academic dean, the Office of the University Registrar, or the Office of the Evening College.

### **ADVISING PROGRAM**

Students are responsible for knowing and fulfilling all general and specific requirements relating to the completion of their degree program.

The offices of the deans, departmental offices, and faculty advisors endeavor to follow each student's academic progress. A student is assigned to a faculty advisor who, in addition to giving academic advising, is available for advice on career and personal matters. The Office of Student Life, the Counseling Center, and the Office of Career Planning and Placement also provide assistance in personal and career matters.

### **ATTENDANCE REGULATIONS**

The establishment of attendance criteria is the responsibility of each school, and thus will vary from school to school and class to

class. Instructors are responsible for clearly informing the student in writing of the attendance requirements for each course and the consequences of poor attendance. Students must abide by the requirements as announced in each separate class even though the requirements may vary widely among courses.

The instructional program at VCU is based upon a system of class meetings involving lectures, discussion, special reading, and reporting assignments. Therefore, it is important for each student to be in attendance on a regular basis. If a student misses a class session, it is the student's responsibility to complete all material covered or assignments made during his absence. Instructors are not required to provide make up tests or examinations for students.

When warranted, an instructor will mail attendance warnings to students faced with being dropped from a course for non-attendance. Warnings will be sent to the student's mailing address of record. Receipt of this form indicates a serious attendance deficiency requiring the student to contact the instructor and to take immediate corrective action.

Any student in attendance difficulty



should contact the instructor and explain the reasons for non-attendance and indicate whether or not he wishes to continue in the course. If, in the opinion of either the student or the instructor, the student has fallen so far behind that successful completion of the course is impossible, the student should withdraw from the course prior to the last three weeks of classes. In the absence of an official withdrawal and continued non-attendance the instructor may withdraw the student for nonattendance with a grade of "W", or assign a final academic grade. Attendance withdrawals are not permitted within the last three weeks of classes.

### **CANCELLATION OF REGISTRATION**

A cancellation of registration must be made prior to the first day of classes by notifying in writing the Office of the University Registrar. Refunds will be issued in accordance with procedures set forth under Refunds in the Expenses and Financial Aid section of this bulletin.

If a student officially cancels his registration he must complete an application for readmission through the Office of Admissions prior to the application deadline for the semester in which the student wishes to return.

See also Withdrawal from the University below.

### **WITHDRAWAL FROM THE UNIVERSITY**

In order to withdraw officially from all courses before the last three weeks of a semester, a student must complete and submit an Official Withdrawal Form obtained from the Office of the University Registrar. Failure to complete this form may result in the assignment of failing grades in all or some of the courses.

The student's permanent academic record will indicate a grade of "Withdrawn" (W) for all courses in which the student was enrolled. Refunds will be issued in accordance with procedures set forth under Refunds in the Expenses and Financial Aids section of this Bulletin.

A student who withdraws from all courses during a semester may attend the following semester without submitting an application

for readmission. A student who does not attend VCU for one or more semesters must submit an application for readmission to the Office of Admissions. This must be done prior to the deadline date for submitting readmission applications for the semester in which the student wishes to return.

See also Cancellation of Registration above.

### **CHANGE OF MAJOR**

If a student wishes to change his major area of concentration, he may initiate this change under the following conditions:

1. Change of Major Forms are available in the Office of the University Registrar. Requests for change will be honored at any time and the change will become effective upon completion of the Change of Major Form in the registrar's office. See heading, Effective Bulletin, page 37.
2. Students wishing to change their major into the School of the Arts must present a satisfactory portfolio or audition.
3. Students who are currently enrolled in a program on the MCV Campus and who wish to change to a curriculum on the Academic Campus will do so through a change of major. Such students are subject to the continuance policy of the Academic Campus in making a change of major.

### **CHANGE IN REGISTRATION**

Once a student has registered for classes, change in that registration may be made only during the following periods:

#### **During Add/Drop Period**

During the first week of classes the student may either add or drop courses from his schedule of classes. Changes in registration will be allowed during the first week of classes according to the following procedure:

1. Complete the Add/Drop Form at the designated area and obtain a copy of the form for record purposes. Courses dropped during the add/drop period do not become part of the student's permanent academic record.

2. A change in registration from "Audit" to "Credit" or "Credit" to "Audit" must be made during the first week of classes.

### After Add/Drop Period

After the course has met for the first week that course may not be added by a student. Courses may not be dropped during the last three weeks of classes. See current university bulletin for exact calendar dates. Courses may be dropped only in accordance with the following procedures:

1. After the first week of classes, drop forms may be obtained only in the Office of the University Registrar.
2. Courses dropped after the first week of classes will become a part of the student's permanent academic record.
3. If a student fails to complete a Drop Form when he ceases to attend a class, this may result in the assignment of a failing grade in the course.

### CLASSIFICATION OF STUDENTS

Full- and part-time degree-seeking students are classified by credits earned as follows:

Freshmen .....	1 to 23 credits
Sophomores .....	24 to 53 credits
Juniors .....	54 to 84 credits
Seniors .....	85 credits and above

### CONTINUANCE IN COLLEGE OF DEGREE-SEEKING AND SPECIAL STUDENTS

#### Satisfactory Progress

In order to be making satisfactory progress, a student must maintain a "C" average on all work attempted at this university. Since the grade of "C" carries two grade points per semester hour, the student must have no fewer than twice as many grade points as semester hours attempted.

#### Grade Point Deficiency

If the student's cumulative grade point total is less than twice the number of semester hours attempted, he is said to have a grade point deficiency. (For example, if a student has attempted 32 semester hours, his grade points should total at least 64. If, in

fact, his grade points total only 52, the deficiency is 12.)

In the calculation of semester hours attempted, all work at this university receiving a grade of "A," "B," "C," "D," or "F" is counted regardless of whether or not certain courses are applicable to the major program which the student is pursuing or intends to pursue at the time of calculation.

#### Academic Warning

A student who fails to maintain a cumulative "C" average (2.0 GPA), that is, has a grade point deficiency between 1-20, will be placed on academic warning. Such notification will appear on the student's grade report. This means that the student is not making satisfactory academic progress. Continuing unsatisfactory performance may result in academic suspension.

#### Academic Suspension

A student either degree-seeking or "special," is suspended for academic reasons at the end of any semester or summer session in which the cumulative grade point deficiency exceeds 20.

A student receiving a notice of suspension should consult with his advisor, assistant dean, or the registrar to clarify all options open to him.

As in the case of all other regulations, a student desiring to appeal academic suspension should consult the statement on page 55 concerning the Academic Status Committee.

#### First Suspension

A student who is suspended for the first time may not enroll for credit in classes for the semester or the summer session immediately following the suspension.

A student who is suspended after the fall semester may not return to VCU during the spring semester immediately following the suspension. The student may apply for the summer session as a special student and if accepted must achieve above a "C" average during the summer session or be subject to a second and final suspension.

A student suspended after the spring semester may not return to VCU during the summer immediately following the suspen-

sion. The student may apply for the fall semester as a special student and if accepted must achieve above a "C" average during the fall semester, or be subject to a second and final suspension.

A student suspended at the end of the summer session may not return to VCU for the fall semester immediately following the suspension. The student may apply for the spring semester as a special student and if accepted must achieve above a "C" average during the spring semester or be subject to a second and final suspension.

If the student reduces the deficiency in the semester or summer session in which he returns as a special student, the student may make application for admission or readmission as a degree-seeking student. A student who withdraws from all courses during a semester may attend the following semester without submitting an application for readmission. A student who does not attend VCU for one or more semesters must submit an application for readmission to the Office of Admissions.

Both while a special student and after readmission, the student must show continuous improvement in each successive term until the cumulative grade point deficiency is reduced to 20 grade points or less, or be subject to a second and final suspension.

A change of grade which will affect academic eligibility must be made during the first week of classes of the semester or summer session in which the student wishes to continue attendance.

Course work taken at another institution while under academic suspension from VCU will be considered as part of the criteria for readmission, but this course work may not be used to decrease the VCU grade point deficiency. If the student is readmitted, the course work will be evaluated according to regular procedures.

In order to register for courses on the Academic Campus, a student under suspension from the MCV Campus must comply with the eligibility policies of the Academic Campus.

For further information on readmission policies refer to Part II of this bulletin.

### **Deadlines for Application for Readmission**

The student should consult the Office of Admissions for deadlines for submitting application for readmission.

### **Second Suspension**

The student who has been suspended twice from VCU may not enroll in any classes for credit.

However, the student who is suspended for academic reasons may register for courses on an "Audit" basis under the regulations for audits as given on page 60.

### **DEGREE REQUIREMENTS FOR ALL ACADEMIC CAMPUS STUDENTS**

Listed below are the degree requirements which must be fulfilled by all degree-seeking students on the Academic Campus. The student must consult the school and major departmental sections of this bulletin for additional degree requirements.

### **Effective Bulletin**

See page 37.

### **Grade Point Average**

A grade point average (GPA) of at least 2.0 (A "C" average) is required for all credits presented for graduation for either an associate or baccalaureate degree. (Only credits taken at VCU are computed in the GPA.) A student need present for graduation only those credits which fulfill Academic Campus, school, and major requirements, and together constitute a 2.0 average.

### **Total Credits**

The total number of semester credits required for graduation depends upon the student's major. Specific information may be found under the several degree program descriptions beginning with Part VI of this bulletin.

### **Major Concentration**

A grade point average (GPA) of at least 2.0 (a "C" average) is required for all credits in the student's major presented for graduation. Only credits taken at VCU are computed in the GPA. A student need present

for graduation only those credits which fulfill the major requirement.

### **Upper Level Courses**

A minimum of 45 credits is required in 300 and 400 level courses for a bachelor's degree. Credits transferred from two-year institutions may not be used to fulfill this requirement.

### **Last 30 Credits**

Degree candidates are required to complete the last 30 credits at this institution for either an associate or bachelor's degree.

### **Graduation Application**

The university confers degrees in May, August, and December; however, it holds an annual commencement exercise only in May. Each student who expects to complete the degree requirements by the end of a semester or summer session is required to file an application for the degree. Application forms may be obtained from the Office of the University Registrar.

Degree applications must be submitted by the student to his advisor no later than the dates indicated in the calendars appearing in the front of this bulletin. A student should schedule a conference with his advisor well ahead of the deadline and should note that the application requires, in addition, the approval of the department chairman and dean.

### **Second Baccalaureate Degree**

A student who wishes to earn a second baccalaureate degree at the university should complete an admission form for the second degree. This form may be obtained from the Office of Admissions and should be returned to that office. Upon receipt of the student's previous academic record, the Office of Admissions will notify the student to confer with the appropriate assistant dean. After a review by the assistant dean and the department chairman, the school's decision will be forwarded to the Office of Admissions, which will notify the student of the decision.

The student seeking the second undergraduate degree must earn a minimum of 30

additional semester credits at VCU and must also satisfy any supplementary requirements of the department or school granting the degree.

### **Minor Areas of Concentration**

Though a minor is not required for completion of a degree, a student may elect a minor area of concentration in any department offering a minor program. A minor is the completion within an area of specialization of a group of courses which is usually less than that required for a major. The minor may be used to fulfill career needs or to investigate in depth a discipline of secondary interest.

The student shall file an intention to pursue a minor through his advisor with the chairman of the major department. The courses for the minor shall be chosen from those courses approved by departments offering minors. A notation recognizing the fulfillment of the requirements for a minor will be posted on the student's permanent academic record at the time of graduation.

### **Evaluations and Final Grade Reports**

Between the seventh and tenth weeks of the semester, each faculty member will evaluate each of his student's academic achievements and will report that evaluation to the student and to the dean.

Reports showing the final grades of students in their courses are sent at the end of each semester.

Final grade reports are mailed to the official mailing address on file in the Office of the University Registrar. Students may change their official address by submitting a written request to the Office of the University Registrar.

## **GRADING SYSTEM**

### **Grades and Grade-Points**

VCU course work is measured both in terms of quantity (semester hours of credit) and quality (grades). Grades are assigned according to a letter system with each letter being assigned a grade-point value. The letter grades and grade-point values are as follows:

Letters and Meaning	Grade-Point Value per Semester Credit
A—Superior	4
B—Good	3
C—Average	2
D—Passing	1
F—Failing	0
AU—Audit	—
I—Incomplete	—
PR—Progress	—
CO—Continued	—
W—Withdrawn	—
NG—Administrative grade assigned when no grade is submitted by the instructor—	—
NC—Administrative grade in the Special Services Program	—

The above scale is known as the four-point grading system since four is the highest grade-point assigned.

The number of grade points earned is computed by multiplying the grade-point value for the letter grade by the number of semester credits for the course. As an example, a student receiving an "A" (i.e. 4 grade points) in a 3 credit course receives 12 grade points.

Grades noted by "-" for grade-point value are not considered in the computation of hours attempted, hours earned, grade-points earned, or grade point average.

### Grade-Point Average

The grade-point average (GPA) is computed by dividing the number of grade points earned at VCU by the number of credits attempted at VCU. The grades of accepted transfer courses are not included in the computation of the VCU grade-point average.

### Repeated Courses

The semester credits attempted and grade points earned for all attempts are included in computing the cumulative grade-point average. No matter how often a course is repeated, it may be counted only once as credits presented toward graduation. Before repeating a course, the student should consult with his advisor or department chairman.

### Grade of Audit (AU)

Class size permitting, a student may register for a course on an audit basis.

Auditing a course means that a student enrolls in a course but does not receive academic credit. A student who registers on an audit basis is not subject to attendance regulations and other course requirements, though he may wish to fulfill them by an arrangement with the instructor. Audit students are charged the regular rate of tuition and fees, and an audit course is counted as part of the student's semester load.

A change in registration from "Audit" to "Credit" or "Credit" to "Audit" must be affected during the add/drop period. A course taken for audit cannot be changed to credit at a later date.

### Grade of Incomplete (I)

If because of circumstances beyond the student's control, the student is unable to meet all of the requirements of the course by the end of that semester, the grade of "Incomplete" may be given. The awarding of a grade of "Incomplete" presupposes an understanding between the instructor and the student.

The maximum time limit for submission of all course work necessary for removal of an "Incomplete" is the end of the last day of classes of the next semester following the semester (or summer session) in which the "Incomplete" was incurred. At the end of the succeeding semester, an unremoved grade of "Incomplete" is automatically changed to a failing grade. An extension of the time limit must be approved by the instructor and the dean of the school through which the course is offered prior to the expiration date stated above. A written approval indicating the new time limit must be filed with the Office of the University Registrar by the dean.

### Grade of Progress (PR)

The grade of "PR" may be assigned only in courses approved for such grading. Unlike the grade of "I", the grade of "PR" will not automatically be changed to a failing grade at the end of the succeeding semester.

### Grade of Continued (CO)

The grade of "CO" may be assigned as an interim grade for those courses which run over several grade reporting periods. The

“CO” indicates that the course is not expected to be completed in a single semester and that the student must re-register for the course. Upon completion of the course a final grade will be assigned to the current semester and the previous “CO” grade(s) will remain. This grade may be assigned only in courses approved for such grading.

#### **Grade of Withdrawn (W)**

The grade of “W” indicates that the student has officially withdrawn from the course or has been dropped for non-attendance.

#### **RECOGNITION FOR SCHOLARSHIP**

Students with grades of “Incomplete” and “Progress” are not eligible for the dean’s list.

#### **GRADUATION HONORS**

Candidates for a baccalaureate degree will be recognized for scholarship under the following conditions:

**High Honors.** Awarded for a cumulative grade-point average of 3.6 or above on all credits attempted.

**Honors.** Awarded for a cumulative grade-point average of 3.3 or above on all credits attempted.

Transfer students, in order to qualify for graduation honors for the baccalaureate degree, are required to complete a minimum of 45 credits at this institution with a minimum scholastic average at VCU of 3.6 for high honors or 3.3 for honors, supported by equivalent performance on all credits attempted elsewhere. Transfer credit graded as “pass/fail” will not be included in the computation for determination of honors or high honors at VCU.

Recognition of graduation honors will be made on the student’s diploma and permanent record.

#### **SEMESTER CREDIT VALUE**

The semester credit is the quantitative unit by which courses are measured. A semester credit is defined as one hour per week of lecture-recitation or not less than two hours per week of laboratory work, field work, internship, or studio work throughout a semester.

### **STUDENT LOAD**

#### **Full-or Part-time Students**

Student load is the total number of credits for which a student is enrolled in any semester. The student is classified as “full-time” during any semester in which he is enrolled for 12 or more credits. The student is classified as “part-time” during any semester in which he is enrolled for 11 credits or less.

The degree-seeking student may be either a “full-time” or “part-time” student. See also page 28.

#### **Overload**

The maximum number of credits for which a student may enroll in any semester without special permission is 19. More than 19 credits is an overload. Permission to enroll in 20-21 credits will be granted upon the approval of the student’s advisor and academic dean. An Overload Approval Form may be obtained from the Office of the University Registrar.

No student may attempt more than 21 credits in any one semester.

Students will be charged an additional fee for each credit taken over a semester total of 19.

Credits earned concurrently at another institution will not be accepted for transfer to VCU unless approval of the department chairman and academic dean is granted before registration at the other institution. A Concurrent Registration Form can be obtained from the Office of the University Registrar.

#### **TRANSCRIPTS**

A transcript is a copy of the student’s permanent academic record. An official transcript carries the university seal. Unofficial transcripts given directly to students do not carry the university seal.

Transcripts of student academic records are issued by the Office of the University Registrar only upon the written request of the student. The request should be made at least one week prior to the date needed.

Transcripts cannot be issued during a two week period immediately following examinations.

A charge of \$1 will be made for each transcript.

No transcript will be issued unless indebtedness to the university has been satisfied.

Transcript requests signed by the student may be submitted in person or by mail to the Office of the University Registrar, 901 West Franklin Street, Richmond, Virginia 23284.

## GENERAL COURSE INFORMATION

### Course Numbering

Courses numbered in the 100 and 200 series comprise the lower division offerings and are open to all students; courses numbered in the 300 and 400 series comprise the upper division offerings and are designed for juniors and seniors. Courses in the 500, 600, and 700 series are for graduate students.

Evening College and Summer Sessions offerings are the same as those listed herein.

### Course Interpretation

A single number listing for a course, such as Business 121, indicates that it is a one-semester course and may be offered each semester or only one semester each year.

Courses listed with a double number, such as History 201, 202 and designated as semester courses, consist of two one-semester courses, either semester of which may be taken without the other.

Courses listed with a double number, such as English 101-102 and designated as a continuous course, consist of two one-semester courses, the first of which can be taken without the second, but the second of which cannot be taken without the successful completion of the first.

The university reserves the right to withdraw any course or program.

## COURSE ABBREVIATIONS USED IN THIS CATALOG

### Abbrev. Description

AAS	Afro-American Studies
AEN	Art Education
AFO	Art Foundation
AJP	Administration of Justice and Public Safety
AMS	American Studies

ANT	Anthropology
APM	Applied Music
ARA	Arabic
ARH	Art History
ART	Art
BIO	Biology
BUS	Business
CDE	Communication Arts and Design
CHE	Chemistry
CHI	Chinese
CHM	Church Music
CML	Comparative and General Literature
CRA	Crafts
CSC	Computer Science
CSE	Community Services
DIE	Distributive Education
ECO	Economics
EDU	Education
ENG	English
EUC	European Cultures
FDE	Fashion Design
FLT	Foreign Literature in English Translation
FRE	French
GEO	Geography
GER	German
GRE	Greek
HEB	Hebrew
HEN	Health Education
HES	Health Sciences
HIS	History
HON	Honors
HUM	Humanities
IDE	Interior Design
ITA	Italian
LAT	Latin
LIN	Linguistics
LRS	Library Research Skills
LSK	Language Skills
MAC	Mass Communications
MAT	Mathematics
MHT	Music History, Literature, and Theory
MUC	Music Composition
MUE	Music Education
PAP	Painting and Printmaking
PHE	Physical Education
PHI	Philosophy
PHS	Physical Science
PHY	Physics
POS	Political Science
PSY	Psychology
PTY	Photography
REC	Recreation
RES	Rehabilitation Services
RST	Religious Studies
RUS	Russian
SCU	Sculpture
SLW	Social Work
SOC	Sociology
SPA	Spanish
SPE	Speech
SSC	Social Science
STA	Statistics
THE	Theatre
UNS	University Studies
URS	Urban Studies







## PART VI—School of the Arts

MURRY N. DEPILLARS

Dean

ROBERT F. HESTER

Associate Dean

THOMAS H. DESMIDT

Acting Assistant Dean

JOAN MULLER, Librarian

School of the Arts

WILLIAM STEWART, Director

Graduate Studies

BRUCE M. KOPLIN, Director

Anderson Gallery

The School of the Arts of Virginia Commonwealth University had as its beginning a sculpture course offered in 1926. In 1928 a one-faculty art department was formed under the direction of Miss Theresa Pollak and since that date has grown to its present organization, achieving national recognition through its quality program in the visual and performing arts.

In 1969 the Department of Dramatic Art and Speech and the School of Music, formerly independent units within Virginia Commonwealth University, were combined with the School of Art to form the present School of the Arts.

The School of the Arts is accredited by the National Association of Schools of Art and the National Association of Schools of Music.

The School of the Arts offers a distinctly

professional program in which students devote the greater portion of each day to professional courses in the arts. Located within an urban complex of higher education, students are provided with the advantages of comprehensive facilities as well as professionally competent faculty. It is the only state-supported professional school of the arts in the South and one of the few in the nation offering a professional curriculum within a combined academic and professional environment.

The purpose of the School of the Arts is to enliven and enrich literacy in the visual and performing arts through the advanced thought and perception of its students and its faculty. It is our intent to develop innovative approaches to the making and comprehension of works of art which elaborate upon the complexities of contemporary man. These works of art clarify and give meaning to the circumstances within which men find themselves. To *sustain inquiry* into the nature of being and becoming, and to strengthen the artistic process and products that reflect that inquiry, constitute a major objective for the School of the Arts.

Each department contributes to the solution of, and encourages students to approach and resolve, aesthetic, intellectual, and technical problems with scholarly

analysis and experimentation, informed discrimination, and environmental awareness. In short the School of the Arts encourages the student to develop a highly professional attitude toward his work and the solution of significant creative problems.

### Degree Programs

Baccalaureate programs within the School of the Arts are designed to prepare creative leaders in the visual and performing arts professions. Emphasis is placed on the development of individual competencies in the arts through the following departments which make up the School of the Arts:

Art Education	Music
Art History	Painting and
Communication	Printmaking
Arts and Design	Photography (no
Crafts	degree offered)
Fashion Design	Sculpture
Interior Design	Theatre

The School of the Arts offers graduate programs leading to the Master of Fine Arts (M.F.A.), Master of Art Education (M.A.E.), Master of Arts (M.A.), Master of Music (M.M.), and Master of Music Education (M.M.E.) degrees with major and minor concentrations in various departments. Detailed information is available through the School of the Arts Graduate Bulletin.

### Transfer Students

Placement in all upper level courses is determined by departmental faculty committees, following evaluation of the student's record, performance, audition and/or the student's creative work. The student should contact the appropriate department chairman at the time of acceptance in order to arrange for such evaluation prior to enrollment.

### Special Charges (See page 40 also)

All majors enrolled in the School of the Arts are charged a comprehensive lab fee of \$35 each semester. The money is prorated to the individual departments, and they determine the expenditures which result in a return to the students through materials, services, and/or equipment, which may include models, field trips, or special lec-

tures. Non-art majors enrolled in any of the numerous courses which require an additional outlay for materials will be billed for those individual fees by the Business Office.

### Academic Requirements

All majors within the School of the Arts are required to earn a minimum of "C" in all major work attempted in order to remain in their departments.

Evaluation of the record of each student will be made periodically by the department and the student's advisor. If, at any time during undergraduate studies, the department faculty concludes that a student is not demonstrating adequate progress in his area of concentration, he will be advised to withdraw from that department.

### General Information

Matriculated students in a professional curriculum receive preference in enrolling for courses in that program. However, unless otherwise indicated, all courses are open to any student within the university.

In view of the sequence in which course work is arranged, only transfer students will be considered for admission at mid-year.

With the exception of those in art history, all courses must be taken in numerical sequence unless approved by the chairman of the department in which they are listed.

In many of the courses, a considerable amount of work is necessarily done outside of class. Such work is done in addition to that of the scheduled classes which students are required to attend.

Departments within the School of the Arts reserve the right to retain examples of student work for permanent collections.

Students should contact the appropriate department chairman, prior to enrollment, for a more detailed curriculum outline than that which is contained in this bulletin.

### UNDERGRADUATE CREDIT BY EXAMINATION

1. Examinations for credit in courses offered by the School of the Arts may be taken in the fall or spring semester of the regular academic year and during the Summer Sessions by any currently enrolled student.

- 2. No one may take an examination for a course in which he has received transfer credit or in which he has received a "D" grade at VCU.
- 3. Each department shall determine which of its courses, if any, may be taken by examination and the eligibility or qualifications of the student to take a specific examination.
- 4. For a student who passed an examination, the course title, hours earned, and "credit" shall be recorded on his or her permanent record. The course will be used in computing the required hours for graduation, but not for determining the student's grade point average.
- 5. The procedure for authorizing and conducting credit by examination shall be as follows:
  - A. A student who wishes to qualify for credit by examination shall apply to the registrar for a Credit by Examination Approval Form. The registrar shall certify that the student is currently enrolled. Application for credit by examination must be made within the first four weeks of any semester of the regular academic year or during the first week of any of the regular summer sessions.
  - B. The certified approval form must be signed by the chairman of the student's major and the chairman of the department offering the course. When all approvals are granted, the student shall pay the charge of \$5 per credit to the Cashier's Office.
  - C. The department shall determine the content of the examination and the readers for the examination. The student shall take the examination within two weeks of the date of final approval. No student shall be permitted to take more than two examinations in one day.
  - D. After the examination is completed, the chairman of the department giving the examination shall record the grade on the approval form and transmit it to

the registrar for posting on the permanent record.

**ART FOUNDATION PROGRAM**

DURWOOD C. DOMMISSE  
Acting Director

In the visual arts all beginning and transfer students as necessary are enrolled in the Foundation Program which provides the basic concepts, skills, and experiences necessary for admittance to advanced professional studio work in each department. In the program, career opportunities in the entire field of art are discussed. The student who has been accepted and placed in the Foundation Program will not have a departmental affiliation until after the screening of portfolios which occurs during the spring semester of the freshman year. At that time students will be given the opportunity to apply to the department of their choice. Departmental acceptances will be based on individual student performance and competency in the chosen area.

**Art Foundation Curriculum**

	Credits	
	1st Sem.	2nd Sem.
AFO 101-102 Communication and Presentation .....	2	2
AFO 103-104 Communication Vehicles .....	2	2
AFO 105-106 Arts History Survey	3	3
AFO 107-108 Introduction to the Arts or Electives .....	2	2
AFO 109-110 Drawing Vehicles...	2	2
AFO 111-112 Drawing Studio ....	2	2
ENG 101-102 Composition and Rhetoric .....	3	3
	<hr/> 16	<hr/> 16

**ART EDUCATION**

ALAN L. LANDIS  
Chairman of the Department  
Charles F. Bleick / Michael H. Ferris  
Glenn B. Hamm / Priscilla C. Hynson  
C. Sherry Potts / Alan P. Schantz  
Barbara Schulman / Betty Tisinger

The Department of Art Education provides the structure and resources for highly integrated courses of study designed to prepare students as comprehensive arts

educators. Majors in the department are involved in a continuous, developmental sequence of experiences individually planned to capitalize on both the student's and the university's potentials for creating new knowledge and effecting viable alternatives for arts education in contemporary culture. The program reflects a strong emphasis on extensive preparation in the arts as a means for developing artistic sensitivity, critical analysis, perception, and interpretation of art forms.

Graduates of the program are granted concurrent teacher certification for elementary, middle, and secondary levels. The National Association of State Directors of Teacher Education and Certification (NASDTEC) has established a national system of reciprocity for teacher certification. Thirty states, including Virginia, operate under this system of reciprocal agreements. The undergraduate degree in art education has an approved program status with the State Department of Education, and is therefore a part of the NASDTEC system.

Admission to the degree program follows successful completion of the freshman foundation program (or equivalent preparation in the case of transfer students from other institutions). Admission should not be construed as a guarantee to graduation. The faculty reserves the right to counsel out of the degree program those students whose overall performance is unacceptable according to the administration's and faculty's standards, or whose performance indicates that their potential cannot be fully recognized as a result of misalignment between the student's goals and the department's objectives.

The department also offers a variety of course options for persons of all ages from the community-at-large and for majors of other disciplines within the university. These offerings provide alternatives for persons to increase aesthetic sensitivities and to explore the potential of the creative process for extending human capacities.

## Degree Requirements in Art Education

	<i>Credits</i>
Foundation Program .....	32
General Education Electives .....	14
American History .....	3
Laboratory Science .....	8
Mathematics .....	3
School Health, Physical Education .....	4
Advanced Art History .....	3
Professional Education .....	27
Two-Dimensional Studios .....	14
Three-Dimensional Studios .....	14
Art Electives .....	12

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## ART HISTORY

### MAURICE BONDS

Chairman of the Department

Nancy S. Brantley / Richard N. Carlyon  
 Richard C. Flint / C. Krishna Gairola  
 Dennis H. Halloran / H. Gilda Hinter-Reiter  
 Sharon G. Jones / Bruce M. Koplin  
 Sue M. Messmer / Joan L. Muller  
 Regenia A. Perry

Part-Time—Carole G. Kass / L. Cleo Mullins

The Department of Art History, as part of a professional art school, makes it possible to offer two distinct curricula: (A) with a liberal arts orientation and (B) with a studio orientation. Program A prepares the future art historian to continue studies at the graduate level in his field. Program B is designed for the artist-historian who is interested in preparing for both studio and art history. Students must elect one of the two programs upon completion of the sophomore year.

## Degree Requirements in Art History

### Liberal Arts Orientation (A)

	<i>Credits</i>
Foundation Program .....	32
Advanced Art History .....	20
Literature .....	6
French or German .....	14
History .....	12
Speech .....	3
Aesthetics .....	6
Museum Methods or Project .....	12
Archaeology or Religion .....	3
Electives .....	18

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## Studio Orientation (B)

	<i>Credits</i>
Foundation Program .....	32
Advanced Art History .....	20
Literature .....	6
French or German .....	14
History .....	6
Aesthetics .....	6
Fine Arts Studio .....	24
Electives .....	18
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**COMMUNICATION ARTS AND DESIGN**

PHILIP B. MEGGS

Chairman of the Department

Nicolas A. Apgar / Edward Bedno  
 William O. Bevilaqua / Jonathan T. Bowie  
 Robert C. Carter / Patricia J. Chester  
 Meredith Davis / John T. Hilton  
 Robert J. Martin / Charles B. Scalini  
 Nancy L. Strube / Tom Yasuda  
 Barry Zaid

Part-time—Steve Segal

The Department of Communication Arts and Design offers an intense professional curriculum in visual communications. The objective of the undergraduate program is to develop visual designers with independent thinking and problem solving abilities, visual aesthetics, professional skills, and social and environmental consciousness. Contemporary society's information/communication orientation requires this discipline to create visual images and concepts that relate man to his economic, social, cultural, and political life.

After completing the Art Foundation, students enter a sophomore program that focuses on the design process, methods, and techniques. This prepares the student to pursue knowledge and personal interests in upper level elective study in graphic, three-dimensional, projection, and electronic media, as well as photography and cinematography electives offered by the Department of Photography. Our commitment to research and inquiry requires all juniors and seniors to execute independent visual research projects.

As necessary, students are advised on continuance in this program through annual review by the faculty. Expenses for equip-

ment, materials, and supplies in this program may cost a thousand dollars per year.

**Degree Requirements in Communication Arts and Design**

	<i>Credits</i>
Foundation Program .....	32
Design Fundamentals .....	24
Visual Research .....	10
Photo and Film .....	6
C.A. and D. Electives .....	36
Literature .....	6
Design History .....	6
Approved Electives .....	12
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**CRAFTS**

NANCY K. THOMPSON

Acting Chairman of the Department

Jack Earl / Bill Hammersley  
 John Hawthorne / Kent Ipsen  
 Susan Iverson / C. James Meyer  
 Christopher Silliman / D. K. Winebrenner

The Department of Crafts offers curricula leading to professional careers or graduate work in ceramics, metal, jewelry, weaving and textile design, glassworking, and furniture design. A four-year curriculum leading to the Bachelor of Fine Arts degree is offered.

For information about graduate work in crafts, see the School of the Arts graduate bulletin available from Director of Graduate Studies, School of the Arts, Virginia Commonwealth University, Richmond, Virginia 23284.

The courses in this department are open to all students in the university, but must be taken in sequence starting at the 200 level in each media area. Majors must present a portfolio to the faculty for approval prior to graduation.

**Degree Requirements in Crafts**

	<i>Credits</i>
Foundation Program .....	32
Literature .....	6
Advanced Art History .....	6
Basic Crafts .....	12
Advanced Crafts .....	36
Senior Seminar .....	1
Approved Electives .....	31
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## FASHION DESIGN

ALEX N. BODEA

Chairman of the Department

Nancy S. Hollomon / Tom Platt

Carol C. Steinke / Henry C. Swartz

Otti Y. Windmueller

Visiting Professor—Charles Kleibacker

Part-time—Vincent L. Bryant

Frances D. Green / Margaret M. Dillard

Seale A. Moorer

The curriculum in fashion design encourages individual creativity and intellectual growth in a professionally oriented department directed toward cultivating highly proficient creative designers who will enter the fashion industry, custom design, or related fields in fashion. Individual designs are developed as sketches and through techniques of the fashion industry into three-dimensional form in fabric. Guest lecturers and critics from fashion centers are frequent visitors to the department. Field trips, in which students are required to participate, are an integral part of departmental courses.

### Degree Requirements in Fashion Design

	<i>Credits</i>
Foundation Program .....	32
Construction .....	4
Draping and Design .....	16
History of Apparel .....	6
Illustration and Design .....	10
Millinery .....	6
Pattern Drafting and Design .....	20
Textiles .....	3
Literature .....	6
Approved Electives .....	18
Departmental Elective .....	3
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## INTERIOR DESIGN

BEN D. GUNTER,

Chairman of the Department

J. Jewett Field / Dorothy T. Hamilton

Dorothy M. Hardy / Alex Karther

Novem M. Mason / Marian K. McKeever

Steven W. Teczar / Ringo Yung

Part-time—Helen V. Dierks / Anne P. Ryland

The Department of Interior Design offers a professional-oriented program which seeks to produce competent creative designers whose realistic design solutions are based on human needs in the contemporary

environment. Mastery of design techniques, knowledge of resources, and an awareness of interrelating disciplines equip the student to pursue responsible and varied creative design positions or to engage in further academic endeavor.

Field trips are an important part of some of the departmental courses, and students are required to participate in these trips. The expense of these trips is in addition to the tuition and should not exceed \$175 per year.

### Degree Requirements in Interior Design

	<i>Credits</i>
Foundation Program .....	32
Architecture .....	9
Business Considerations .....	10
Design .....	42
Furniture Design .....	6
Graphics .....	6
Advanced Art History (includes IDE 321-322) ..	6
Literature .....	6
Approved Electives .....	15
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## MUSIC

RONALD B. THOMAS

Chairman of the Department

Ardyth J. Lohuis, Assistant Chairman

L. Wayne Batty / Donald A. Bick<sup>1</sup>

Landon Bilyeu / Loran F. Carrier

Paul J. Dorsam / Mary Jane Fitzpatrick

Martha Giles / John H. Heller, Jr.

Jack M. Jarrett / Robert C. Lawes, Jr.

Kang-Sook Lee / Philip J. Lewis

Melissa Wuslich Marrion / Edward A. Mirr<sup>1</sup>

Carl C. Pfeifer / Richard Rivers

J. Lawrence Robinson / John D. Savage

Frantisek Smetana<sup>1</sup> / Sonia Vlahcevic

Teaching Assistants:

Kenneth Greene<sup>1</sup> / Wayne Kasperski

Frederick Kreiter / Raymond Pancarowicz<sup>1</sup>

Roger Weiler<sup>1</sup> / Van C. Willett

Part-time:

Peter Bahler<sup>1</sup> / Robert Barker<sup>1</sup>

Francile Bilyeu / Judith Eastman Britton<sup>1</sup>

Virginia Carson / Mary Ann Coe

Diana Covington / Robert DeWell

Grete Dollitz / Rolla Durham<sup>1</sup>

Karen Floyd / Jonathan Friedman<sup>1</sup>

Rita B. Gulliksen / Odell Hobbs

Thomas A. Jones / Joseph Kennedy, Jr.<sup>1</sup>

William T. Kidd / Loren W. Kitt

Ann LaFratta / Richard Laird<sup>1</sup>

Ann Myong Sook Lee / Vera Z. Lendvay

George D. Lowrey / Brian Medas

<sup>1</sup>Member, Richmond Symphony Orchestra

Agnes R. Mobley/James Moore III  
 Gailyn D. Parks / Lavada Parks  
 Dorothy Pfeifer / Cheryl Priebe  
 Carla C. Ross / Richard R. Ross  
 Robert Satterwhite / Mary Byerly Southward  
 Helen Spiers / Doris Stanley  
 William J. N. Stokes / Alexander Sung  
 Kathleen Vaught<sup>1</sup> / Natalie Willett  
 Edward G. Wooldridge, Jr.

### General Information

The Department of Music offers a comprehensive program designed to assist the student in acquiring those intellectual and musical competencies which are imperative for active musical participation in a modern society. The requirements for entrance and graduation are in accordance with the standards advocated by the National Association of Schools of Music. An audition and written general musicianship examination are necessary for admission, and students must meet the general admission requirements of the university. All freshmen entering the department are classified as "music majors" for their first year. During the second semester the student may apply for admission into a degree program (applied music, church music, music education, composition and theory, music history and literature) for his sophomore year. This decision may be postponed but must be made by the end of the fourth semester.

The Department of Music offers a program that leads to the Bachelor of Music Education degree. The program includes those requirements necessary to qualify for the Collegiate Professional Certificate issued by the Commonwealth of Virginia. The requirements for the degree may be changed to meet those for certification in other states.

The core of the musicianship program is Literature and Structure of Music (MHT 121 through 322). This is a competency based course sequence which is fundamental to all major areas in the department. The first four semesters deal with composing, conducting, performing, aural skills, elements of theory, orchestration, and music literature-history. The last two semesters are comprised of topical courses and independent projects which may be elected and sequenced by each student.

All music majors are expected to enroll in two ensembles each semester of their residence, for a minimum of 16 credits (14 credits for music education majors). The distribution of ensembles must include five semesters in large ensemble and five semesters in chamber music.

University students who major in a field other than music may register for private or class lessons and a wide variety of courses in music. Music Appreciation, Introduction to Afro-American Music, and many undergraduate Evening College music classes are specifically designed for the non-music major. Other courses are open to non-music majors who have adequate background. Non-music majors taking private lessons will be charged fees in accordance with the schedule below.

### FEES

All full-time undergraduate music majors pay a comprehensive music fee of \$140 each semester. This includes the School of the Arts comprehensive fee of \$35, one hour weekly private lesson on *major instruments*, special musical and educational materials, and instructional/performance opportunities. Private lessons on other than the student's major instrument are charged at the rate of \$55 per semester for one half-hour private lesson per week.

All part-time undergraduate music majors carrying 7-11 credits pay a comprehensive music fee of \$70 each semester. This includes the School of the Arts comprehensive fee of \$17, one half-hour weekly private lesson on major or minor instruments, special musical and educational materials, and instructional/performance opportunities. Private lessons other than those indicated above will be charged at the rate of \$55 per semester for weekly half-hour private lessons.

Part-time music majors carrying 1-6 credits, special students, and those who are majors in any department other than music will be charged \$110 per semester for weekly one-hour private lessons or \$55 per semester for half-hour private lessons weekly.

### Community Music School

Pre-college, university, and adult stu-



dents may receive private or class instruction through the Community Music School which is adjunct to the Department of Music. Information regarding registration and fee schedules may be obtained through the coordinator of the Community Music School, Virginia A. Rouse (770-6510). No degree credit is granted for either private or class lessons taken through the school.

## Degree Requirements in Music

### Music Education

	<i>Credits</i>
Class Lessons in Instruments .....	4
Ensembles and Chamber Music .....	14
Junior Recital .....	—
Keyboard Skills .....	4
Literature and Structure .....	36
Methods and Materials .....	6
Principal Performing Medium .....	21
English .....	6
History .....	6
Laboratory Science .....	8
Mathematics .....	6
Health and P.E. ....	4
Education 300 and 301 .....	6
Practice Teaching .....	6
Social Science Electives .....	6
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### Applied Music: Brass, Percussion, Strings, or Woodwinds

Ensembles and Chamber Music .....	16
Junior and Senior Recitals .....	—
Keyboard Skills .....	4
Literature and Structure .....	36
Pedagogy .....	4
Principal Performing Medium .....	24
Secondary Performing Medium .....	4
English .....	6
History .....	6
Approved Electives .....	28
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### Applied Music: Organ

Ensembles and Chamber Music .....	16
Improvisation .....	2
Junior and Senior Recitals .....	—
Keyboard Skills .....	4
Literature and Structure .....	36
Organ Design and Literature .....	4
Organ Pedagogy .....	4
Organ Practicum .....	2
Principal Performing Medium .....	24
Secondary Performing Medium .....	4
English .....	6
History .....	6

Languages for Performing Arts .....	6
Approved Electives .....	16
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### Applied Music: Piano

Ensembles and Chamber Music .....	16
Improvisation .....	2
Junior and Senior Recitals .....	—
Keyboard Skills .....	4
Literature and Structure .....	36
Pedagogy .....	4
Piano Literature .....	4
Principal Performing Medium .....	24
Secondary Performing Medium .....	4
English .....	6
History .....	6
Approved Electives .....	24
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### Applied Music: Synthesizer

Acoustics .....	3
Composition .....	6
Electronic Music .....	5
Ensembles and Chamber Music .....	16
Junior and Senior Recitals .....	—
Keyboard Skills .....	4
Literature and Structure .....	36
Principal Performing Medium .....	21
Secondary Performing Medium .....	4
Aesthetics .....	3
Computer Science .....	3
English .....	6
History .....	6
Approved Electives .....	17
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### Applied Music: Voice

Ensembles and Chamber Music .....	16
Junior and Senior Recitals .....	—
Keyboard Skills .....	4
Literature and Structure .....	36
Pedagogy .....	4
Principal Performing Medium .....	24
Secondary Performing Medium .....	4
Vocal Repertoire .....	2
Acting .....	6
English .....	6
History .....	6
Languages for Performing Arts .....	6
Approved Electives .....	16
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### Church Music

Church Music .....	10
Ensembles and Chamber Music .....	16
Improvisation .....	2
Junior and Senior Recitals .....	—
Keyboard Skills .....	4
Literature and Structure .....	36



Organ Design .....	2
Organ or Vocal Literature .....	2
Organ Practicum and/or Conducting .....	4
Principal Performing Medium .....	24
Secondary Performing Medium .....	8
English .....	6
Languages for Performing Arts .....	6
Approved Electives .....	10

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**Composition and Theory**

Advanced Scoring Techniques .....	3
Classical Formal Techniques .....	3
Conducting .....	4
Contrapuntal Techniques .....	3
Electronic Music .....	3
Ensembles and Chamber Music .....	16
Keyboard Skills .....	4
Literature and Structure of Music .....	36
Principal Performing Medium (instrumental) ...	18
Principal Performing Medium (composition) ...	6
Score Reading .....	2
Secondary Performing Medium and/or Class	
Lessons in Instruments .....	4
Senior Recital .....	0
Twentieth Century Techniques .....	3
English .....	6
Languages for Performing Arts .....	6
Liberal Arts Electives .....	12
Electives .....	3

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**Music History and Literature**

Collegium Musicum .....	4
Ensembles and Chamber Music .....	12
Introduction to Music Research .....	6
Keyboard Skills .....	4
Literature and Structure .....	36
Principal Performing Medium .....	18
Secondary Performing Medium .....	4
Senior Project .....	—
English .....	6
French and German .....	16
History .....	6
Electives .....	12

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**PAINTING AND PRINTMAKING****RICHARD KEVORKIAN**

Chairman of the Department

James A. Bradford / James A. Bumgardner  
 Jewett Campbell / Anne Doering  
 Gerald M. Donato / Michael Drought  
 David N. Freed / Heather Holden  
 Bernard M. Martin / Jacqueline Merritt  
 James B. Miller / Theresa Pollak (Professor Emerita)  
 Milo F. Russell / Philip S. Wetton  
 Morris Yarowsky

Part-time—David F. Sauer

The Department of Painting and Printmaking attempts to establish a foundation for the creative person who desires to attain professional status as a painter or printmaker.

As the students progress they are given an increasing amount of freedom; and as they demonstrate their acquisition of skill and insight, they are encouraged to explore more individually in all areas of their creative work. During the junior and senior years most students concentrate in the area of either painting or printmaking.

**Degree Requirements in Painting and Printmaking***Credits*

Foundation Program .....	32
Drawing, Painting, and Printmaking .....	34
Advanced Art History .....	12
Literature .....	6
Approved Electives .....	46

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**PHOTOGRAPHY****GEORGE D. NAN**

Chairman of the Department

David M. Bremer / Clifton Dixon  
 John N. Heroy / Greg Hoey  
 Dale Quarterman

The Department of Photography contributes to the educational need of the School of the Arts and the university at large. The department offers both basic and intermediate courses in black and white photography, color photography to those who already have two years of course work or a sound photographic background, and advanced black and white and color workshops.

Beginning courses deal with fundamentals and techniques and develop the visual senses while the advanced courses expand in depth a student's knowledge of the visual senses and help the student to put together a well developed portfolio.

A limited number of classes in Super 8 and 16mm filmmaking techniques are offered on the intermediate and advanced level. No degree is offered in photography.

## SCULPTURE

HAROLD E. NORTH

Chairman of the Department

Myron Helfgott / Charles R. Henry  
Charles C. Renick / Joseph H. Siepel  
Lester Van Winkle / Joan E. Watson

The Department of Sculpture exists for creative people who wish to structure their ideas by manipulating tangible materials. The department's goal is to instill in the students a sense of pride based on competence and to help them develop both methods of working and an attitude which will sustain them in their professional and personal growth as sculptors.

### Degree Requirements in Sculpture

	<i>Credits</i>
Foundation Program .....	32
Sculpture .....	38
Art History .....	6
English .....	6
Approved Electives (Studios, Humanities, Liberal Arts) .....	46
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## THEATRE

KENNETH CAMPBELL

Chairman of the Department

C. Thomas Holloway, Assistant Chairman

Velesto H. Courts / William T. Davis  
Maurice L. Erickson / Raymond Hodges  
(Professor Emeritus)

Elizabeth W. Hopper / Gary C. Hopper

Edward C. Houser / Robert Janke

Ellen Lewis / Joseph Martinez

Richard L. Newdick / Errol Segal

Jack Swanson / Ronald Wendschuh

Part-time—David Ballard

Barbara Hicks / William Hicks

Mary D. Phillips / Karen Wynn

Graduate Assistants—Bradford L. Boynton

Patch Clark / Alexia Kolias

Josephine Smith

The Department of Theatre offers an intensive program designed to provide students with the professional and cultural foundation essential to attaining the highest standards of the art. Applicants are admitted only upon satisfactory demonstration of ability and genuine interest by means of interview as well as audition and/or portfolio presentation.

The department offers two Bachelor of

Fine Arts degrees. One is in Theatre with emphasis in either performance or design/technical. The other is in Theatre Education and leads to teacher certification in theatre, speech, and English in public schools.

In these professional programs of theatre, there exists an environment where all aspects of theatre as art, craft, business, and education are taught and learned. For those who seek employment in the profession, the curriculum is designed to immerse a student in the practicalities of the theatrical world. During the first and succeeding years, the performer works daily with his voice, body, and imagination, while the designer/technician learns the tools of his trade in studio classes and through practical application. At the end of the junior year, the students: 1. are invited to join the Conservatory Performing Company after completion of a successful audition; 2. complete courses in design, preparing them for professional work in theatre; 3. continue work in theatre under the Open Program in Theatre where they maintain a base in a particular aspect of theatre but can move into other areas of art; or 4. engage in intensive teacher training toward certification.

### Degree Requirements in Theatre

	<i>Credits</i>
<b>Performance Emphasis</b>	
Performance .....	20
Speech .....	14
Movement .....	10
English .....	6
Art History .....	6
Basic Theatre Design and Crafts .....	12
Theatre Literature and History .....	30
Approved Electives .....	26
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### Design/Technical Emphasis

Performance .....	4
English .....	6
Art History .....	6
Art Foundation .....	8
Basic Theatre Design and Crafts .....	18
Theatre Literature and History .....	30
Theatre Design Electives .....	24
Approved Electives .....	28
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**Theatre Education**

Performance .....	8
Speech .....	10
Movement .....	4
English .....	21
Basic Theatre Design and Crafts .....	15
Theatre Literature and History .....	15
Directing/Creative Dramatics .....	9
Humanities/Social Science .....	18
Math/Science .....	14
Professional Education/Health .....	21

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**COURSES IN ARTS (ART)**

Unless otherwise indicated, courses must be taken in numerical sequence.

**001 Open Studio Workshop.** Semester course; hours to be arranged. No credit.

**190 Advanced Workshop, Drawing.** Semester course; 1 lecture and 6 studio hours. 3 credits. Special summer work in drawing for the freshman applicant whose work shows potential worthy of consideration for advanced placement in September. Must be taken concurrently with ART 191 and 192. Students are admitted only by invitation of the dean of the School of the Arts.

**191 Advanced Workshop, Design.** Semester course; 1 lecture and 9 studio hours. 4 credits. Special summer work in design for the freshman applicant whose work shows potential worthy of consideration for advanced placement in September. Must be taken concurrently with ART 190 and 192. Students are admitted only by invitation of the dean of the School of the Arts.

**192 Advanced Workshop, Art History.** Semester course; 2 lecture hours. 2 credits. Special summer work in art history for the freshman applicant whose work shows potential worthy of consideration for advanced placement in September. Must be taken concurrently with ART 190 and 191. Students are admitted only by invitation of the dean of the School of the Arts.

**309-310 and 409-410 Independent Study.** Semester courses; 3 to 18 studio hours. 1 to 6 credits. Prerequisite: consent of department head and instructor. This course will be limited to those few students who have demonstrated an unusual level of ability and intense commitment to a particular area. The student must be enrolled in a regularly scheduled 300 level studio course. Offered to School of the Arts majors only.

**313,314 Interdisciplinary Topical Studies.** Semester courses; 1 lecture and 6 studio hours. 3, 3 credits. This course is team taught by faculty from various departments within the School of the Arts. It is structured around the individual needs of each student whose interests require the interaction of several disciplines. The course is open to juniors and seniors within the School of the Arts and to others by permission of the instructors.

**370,371 Topics in Art.** Semester courses; 3 lecture or 9 studio hours (or combinations thereof). 3, 3 credits. An in depth study of a selected topic in art. See schedule of classes for specific topics to be offered each semester.

**425/Humanities 425 Art, Music, and Literature of Restoration and Eighteenth Century England.** Semester course; 3 lecture hours. 3 credits. An examination of the characteristics and interrelationships of certain selected works of art, literature, and music of Restoration and Hanoverian England. Dryden, Purcell, Pope, Burlington, Hogarth, Handel, and Walpole are among the major figures to be considered.

**430/530 Guided Study Abroad.** 3-9 credits. Permission of instructor required. Designed to enhance the students' knowledge by providing first-hand experience with the most significant contribution of aesthetic import within the geographic areas traveled.

**COURSES IN ART FOUNDATION (AFO)**

**101-102 Communication and Presentation.** Continuous course; 1 lecture and 3 studio hours. 2-2 credits. A foundation course with the emphasis on conceptualization, sensing, and knowing. This course includes studies in pre-conceptions, value systems, visual semantics, attitudes, criticism, and analysis of visual phenomena. This course is also an introduction to the concepts and nature of materials. For beginning students in the School of the Arts. Offered to art majors only.

**103-104 Communication Vehicles.** Continuous course; 1 lecture and 3 studio hours. 2-2 credits. A foundation course with emphasis on systems and non-systems of spatial order, as well as color applications and theory. For beginning students in the School of the Arts. Offered to art majors only.

**105-106 Arts History/Survey.** Continuous course; 3 lecture hours. 3-3 credits. A survey of the visual and related creative arts emphasizing the development and impact of the historical past on contemporary concepts of creative human endeavor. For beginning students in the School of the Arts. Offered to art majors only.

**107,108 Introduction to the Arts.** Semester courses; 2 lecture hours. 2,2 credits. An orientation course designed to provide a comprehensive understanding of the role of the visual arts as a significant contributing factor in the creation of a meaningful human environment. For beginning students in the School of the Arts. Offered to art majors only.

**109-110 Drawing Vehicles.** Continuous course; 1 lecture and 3 studio hours. 2-2 credits. A foundation course with the emphasis in traditional drawing, including perspective, anatomy, and artistic judgment. For beginning students in the School of the Arts. Offered to art majors only.

**111-112 Drawing Studio.** Continuous course; 1 lecture and 3 studio hours. 2-2 credits. A foundation course

with the emphasis on invention and imagination. This course is designed to challenge and develop the student's facility for combining known phenomena and personal imagery. For beginning students in the School of the Arts. Offered to art majors only.

**113-114 Basic Drawing.** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. A basic course covering free and schematic drawing skills and concepts.

**115-116 Fundamentals of Design.** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. A basic course providing the basic skills, concepts, and language of two and three-dimensional design as related to the visual arts.

## COURSES IN ART EDUCATION (AEN)

**121-122 The Individual in the Creative Process.** Continuous course; 1 lecture, 1 seminar, and 2 studio hours. 3-3 credits. Analysis of creative processes via reflection on the self-in-action. Participation in art experiences as a means to the interpretation and enjoyment of art forms, and the implications of art for society. The course aims to increase perceptual openness, sensitivity to, and understanding of the artistic experience. Not offered for credit to art majors.

**301-302 Art for Elementary Teachers.** Continuous course; 1 lecture, 1 seminar, and 2 studio hours. 3-3 credits. The nature of art and its function in the lives of individuals and society is considered in addition to materials and methods for guiding the visual expression of children.

**310-311 Concepts of Art Education I.** Continuous and developmental courses. 1 lecture, 1 seminar, and 3 studio hours. 3-3 credits. A sequence of studies organized around six major components: 1. communications; 2. expressive media; 3. conceptual expression; 4. teaching strategies; 5. teacher affective attributes; and 6. self-managing abilities. For art education majors only.

**401-402 Concepts of Art Education II.** Continuous and developmental courses. 1 lecture, 1 seminar, and 3 studio hours. 3-3 credits. A sequence of studies organized around six major components: 1. communications; 2. expressive media; 3. conceptual expression; 4. teaching strategies; 5. teacher effective attributes; and 6. self-managing abilities. For art education majors only.

**404 Student Teaching Seminar.** Semester course; 3 seminar hours. 3 credits. A seminar concurrent with student teaching which gives the students an opportunity to discuss and evaluate their progress in teaching assignments and other related activities. For art education majors only.

**406 Art Education Seminar.** 3 seminar hours. 3 credits. Prerequisite: EDU 447, 448. Students will evaluate their student teaching experiences with particular emphasis on changes in philosophy and their relation to curriculum development. For art education majors only.

**408 Two-Dimensional Art Experiences.** Semester course; 1 seminar and 4 studio hours. 3 credits. The course explores the media, techniques, and concepts of drawing, painting, and printmaking. Not offered for credit to art majors.

**409 Three-Dimensional Art Experiences.** Semester course; 1 seminar and 4 studio hours. 3 credits. Exploration of sculptural concepts with three-dimensional materials such as wood, metal, clay, fibre, plaster, plastic, and glass. Not offered for credit to art majors.

**411-412 Fashion Media.** Continuous course; 1 lecture and 4 studio hours, 3-3 credits. Exploration of design concepts, media techniques, and actual execution in fabrics, jewelry, and ceramics with consideration for application to fashion design. For fashion design majors.

**420 The Related Arts in Education.** Semester course; 1 lecture, 1 seminar, and 2 studio hours. 3 credits. Investigation of contemporary patterns of expression which combine the visual and performing arts and their implications for elementary, middle, and secondary schools. Involvement in aesthetic experiences will serve as a vehicle for analysis of interrelationships among expressive forms and provide concepts for developmental growth in relation to curriculum designing. Open to all majors.

**430 The Arts and Humanities in Education.** Semester course; 1 lecture, 1 seminar, and 2 studio hours. 3 credits. Exploration of the perceptual and creative facets of arts and humanities curricula design in middle and secondary schools. The course establishes common denominators of human experience as a basis for integrating traditional disciplines into new patterns for aesthetic experiences through the students' direct involvement in a wide range of artistic activity. For teacher education majors only.

## COURSES IN ART HISTORY (ARH)

**103,104 Survey of Western Art.** Semester course; 3 lecture hours. 3, 3 credits. First semester: Prehistoric through Gothic. Second semester: Italian Renaissance through Modern. Illustrated lectures.

**203,204 Survey of Oriental Art.** Semester courses; 3 lecture hours. 3, 3 credits. First semester: The art of India and Southeast Asia. Second semester: The art of China and Japan. Illustrated lectures.

**211,212/English 211, 212 Western World Art and Literature.** Semester courses; 3 lecture hours. 3, 3 credits. A general survey of the form and content of Western world art and literature with special emphasis on the relationships between visual and literary works. First semester: ancient Greece through the sixteenth century. Second semester: seventeenth century to the present.

**301 Ancient Art.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106.

An intensive survey of Egyptian, Mesopotamian, Greek, Etruscan, and Roman Art.

**302 Medieval Art.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. An intensive survey of Western art and architecture between 300 and 1400 A.D.

**303 Art of the Italian Renaissance.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. The painting, sculpture, and architecture of Renaissance Italy.

**304 Renaissance in Northern Europe.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. Painting, architecture, and sculpture during the North European Renaissance.

**306 Twentieth Century.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. A survey of twentieth century art with emphasis on architecture, painting, and sculpture.

**307,308 History of the Motion Picture.** Semester courses; 3 lecture hours. 3, 3 credits. No prerequisite. The history of development of the motion picture from its early beginnings to the present, with both technical and aesthetic consideration. Appropriate films are shown in addition to lectures. \$10 laboratory fee.

**309 Introduction to Greek and Roman Archaeology.** Semester course; 3 lecture hours. 3 credits. Selected urban centers of the classical world, their rise, destruction, or renewal by urban planning; the history of classical archaeology and its impact on modern European art. Emphasis is on the living context of mature and complex peoples: Crete; Mycenae, Classical and Hellenistic Greece, the Etruscans, and Rome.

**311 American Film Topics.** Semester course; 3 lecture hours. 3 credits. May be repeated for a maximum of six credits with change of topic. An examination of a particular aspect of American film art in depth. See schedule of classes for a specific topic to be offered each semester.

**312 European Film Topics.** Semester course; 3 lecture hours. 3 credits. May be repeated for a maximum of six credits with change of topic. An examination of particular aspects of European film. See schedule of classes for specific topic to be offered each semester.

**315,316 American Art to 1865, American Art since 1865.** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. A study of architecture, painting, and sculpture from the colonial period to the present.

**317,318 History of Architecture.** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106 or permission of instructor. First semester: major architectural forms from ancient Egypt through Renaissance Italy. Second semester: architecture in Europe and America from the seventeenth century to the present.

**319 Introduction to Conservation.** Semester course; 3 lecture hours. 3 credits. An introduction to the art and

science of art conservation. The course is designed to acquaint artists and art historians with the basic methods of deterioration, examination, and treatment of works of art.

**320 Problems in Conservation.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 319. Further investigation of the deterioration, examination, and treatment of works of art in conjunction with literary sources. Designed to be of special interest to the museum-bound student or the future art conservator. Includes practical instruction in diagnosis and documentation.

**325-326 Survey of Contemporary Painting.** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: general survey of art history. An illustrated lecture survey of painting from Abstract Expressionism to the present.

**327 Baroque and Rococo Art.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. The art and architecture of Italy and northern Europe between 1600 and 1750.

**328 Nineteenth Century Art in Europe.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. Study of European art and architecture between 1770 and 1900.

**337/History 337 The Origins of Modernism, 1880-1930.** Semester course; 3 lecture hours. 3 credits. An investigation of the interconnections between social, intellectual, and artistic change in Europe in the crucial period, 1880-1930. Focus is placed on such major figures as Nietzsche, Freud, Einstein, Picasso, Duchamp, and Stravinsky in an attempt to locate the origins of contemporary artistic and intellectual experience.

**401/501 Italian Painting of the Renaissance.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. Detailed consideration of the great masters of painting from the thirteenth through the sixteenth centuries.

**402/502 Architecture in Twentieth Century Richmond.** Semester course; 2 lecture hours. 2 credits. An investigation in class and at actual sites, of the architectural currents in Richmond since 1900 and their relation to national movements in building. (Offered in Summer Session 1977 only.)

**403/503 Modern Sculpture.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. The evolution of twentieth century sculpture considering major movements and artists.

**406/506 Modern Painting.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. An analysis of the major movements in twentieth century painting.

**407,408/507,508 Museum Methods.** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: consent of department chairman. Introduction to the

major aspects of museum administration. Lectures by museum personnel and workshops in a variety of museums. A related research project is required of graduate students.

**409/509 Film Theory.** Semester course; 3 lecture hours. 3 credits. Theories and criticism dealing with the medium, form, function, and psychology of film. Students will examine the medium through reading and discussions of such film theorists and aestheticians as Munsterberg, Eisenstein, Arnheim, Bazin, Kracauer, Burch, and Langer as well as through a comparison of film and the other arts.

**412/512 African and Oceanic Art.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. A study of the artifacts of some of the major art-producing tribes of Africa and Oceania.

**414/514 Gothic Art.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. Origins and developments of the Gothic style with emphasis on the architecture and sculpture of France.

**415/515 Afro-American Art.** Semester course; 3 lecture hours. 3 credits. Prerequisite: advanced standing. A study of the art forms produced by Americans of African origin from the seventeenth century to the present with an emphasis on contemporary trends in black art.

**416/516 The High Renaissance.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. Intensive consideration of the great masters of Italian art in the early sixteenth century.

**420 Museum Internship.** Semester course; 9 to 18 studio hours. 3 to 6 credits. Course may be repeated with changing content to a maximum of 12 semester credits. Prerequisites: ARH 407, 408 and permission of chairman of the art history department. Field work in a local or regional museum.

**421-422 Aesthetics.** Continuous course; 3 lecture hours. 3-3 credits. Analysis and evaluation of contemporary art criticism (including the film as an art form). John Dewey, Susan Langer, and other critics are considered.

**425-426/525-526 Seminar in Contemporary Painting.** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: ARH 325-326 or its equivalent. A seminar dealing with a problematic approach to the arts with emphasis on painting from 1940 to the present.

**428/528 The Art of Southeast Asia.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. The art of Burma, Malaya, Thailand, Cambodia, Indochina, and Indonesia.

**430 Architectural History: Richmond.** Semester course; 3 lecture hours. 3 credits. History and origins of Richmond area architecture. No prerequisites.

**432/532 Film Seminar.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 307, 308, or background in history of the film. A study of the *auteur* theory and criticism of representative films by great

directors. Directors and films will vary from semester to semester.

**433/533 Early Indian Art.** Semester course; 3 lecture hours. 3 credits. Prerequisite: general background in art, history, or religion of the area. The Indus Valley civilization through Maurya, Sunga, Kushana, Andhra, Gupta, and Pallava periods.

**434/534 Later Indian Art.** Semester course; 3 lecture hours. 3 credits. Prerequisite: general background in art, history, or religion of the area. The Chalukya, Chola, Rajput dynasties, early Islamic, and Moghul periods through British India.

**436/536 Eighteenth Century Art and Architecture.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. An evaluation of European art of the eighteenth century with in depth study of key monuments and major movements.

**437-438/537-538 Art in the Nineteenth Century.** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: AFO 103, 104 or AFO 105-106. An evaluation and analysis of the visual arts in the nineteenth century. Special emphasis will be given to the cultural and industrial changes, their influences upon the arts and the development of modern art.

**439/539 Seventeenth Century Art and Architecture.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ARH 103, 104 or AFO 105-106. An evaluation of European art of the seventeenth century with in depth study of key monuments and major movements.

**441,442/541,542 Seminar in Contemporary Sculpture.** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: permission of instructor. A forum for consideration and discussion of the more recent developments in the field. A special project will be required of graduate students.

## COURSES IN COMMUNICATION ARTS AND DESIGN (CDE)

**223-224 Visual Thinking.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. An exploration of media and processes for expressing mental concepts in visual terms.

**227-228 Problems in Visual Communication.** Continuous course; 4 lecture and 6 studio hours. 6-6 credits. A workshop in the design disciplines as related to contemporary issues and their solutions. Students will solve design problems by being exposed to and involved with the disciplines of problem definition, research, analysis, idea generation, synthesis, development, refinement, and presentation.

**239-240 Visible Language.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. An exploration of the visual media of language and symbol expression, the origins and evolution of letterforms and symbols, and their design and application.

**307 Origins of Visual Communications.** Semester course; 3 lecture hours. 3 credits. A history of man's



visual communications and design from prehistoric times to the twentieth century.

**308 Twentieth Century Visual Communications and Design.** Semester course; 3 lecture hours. 3 credits. An investigation of contemporary visual communications concepts, media, and images and their role in post-industrial society.

**321-322 Visual Research Project I.** Continuous course; 1 lecture and 3 studio hours. 2-2 credits. The structuring, research, execution, and presentation of an independent project in visual communications under the direction of a faculty advisor. The student will be encouraged to become a self-generating problem seeker and solver with the ability to carry out self-stated goals.

**331-332 Illustration.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. Pictorial representation for visual communications. Emphasis on concepts and media experimentation for effective visual communication.

**337-338 Drawing and Color Concepts.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. Exploration of conscious and subconscious solutions to the phenomena of drawing and use of color.

**339-340 Nature Design Workshop.** Continuous course; 2 lecture and 3 studio hours, 3-3 credits. A course in nature graphics and exhibit.

**349-350 Variable Media.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. Innovative activity realized through the use of diversified media with emphasis on light/motion and electronic solutions.

**359-360 Three-Dimensional Design.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. Three-dimensional form as communications, motivational, and learning media.

**361-362 Videographics.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. An exploration of the technical and innovative potential of television as a kinetic graphic design medium.

**363-364 Graphic Design.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. The design and reproduction of printed communications.

**401-402 Educational Communications.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. Prerequisite: CDE 363-364. A professional studio for students to design and produce educational graphics and audio-visual instructional packages for the university.

**421-422 Visual Research Project II.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. Advanced problems in visual research. Same criteria as Visual Research Project I. Student will be expected to develop projects of a more complex nature. At this advanced level successful completion and presentation of an individual project is a requirement for graduation. Student will leave the department with a complete audio-visual record produced either on motion picture film, video tape, or sound/slide.

**431-432 Advanced Illustration.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. Prerequisite: CDE 331-332. Advanced problems in pictorial representation for visual communications.

**435-436 Media Synthesis.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. The production of sequential sound and imagery for effective presentation.

**441-442 Community Graphics Workshop.** Continuous course; 2 lecture hours and 3 studio hours. 3-3 credits. Prerequisite: CDE 363-364 and consent of faculty by portfolio review. A professional studio course in which students design and produce visual communications for public, non-profit organizations.

**451-452 Urban Graphics.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. An exploration of visual communications in the urban, manmade environment.

**453-454 Animation.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. The designing and making of animated films. Principles and methods of creative animation will be explored.

**457-458 University Graphics.** Continuous course; 2-4 lecture and 3-6 studio hours. 3-6 credits per semester. Prerequisite: CDE 363-364. A professional studio for students to design and produce print communications for the university.

**461-462 Video Workshop.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. An interdisciplinary video workshop in portable and studio video communications.

## COURSES IN CRAFTS (CRA)

**201-202 Metalsmithing.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. Investigation of metal forming processes such as forging, raising, and construction. Research in contemporary and historical metal forms is encouraged.

**211-212 Jewelry.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. Investigation of jewelry making processes such as construction, repousse/chasing, surface embellishment, stone setting, and casting. Research in contemporary and historical jewelry forms is encouraged.

**221-222 Woodworking and Furniture Design.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. Fundamental techniques in woodworking and fabrication of furniture involving basic joinery construction and design and mechanical drawing.

**241-242 Beginning Ceramics.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. Basic problems in the history, design, technology, and production of ceramic ware.

**261-262 Beginning Textiles.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. Basic course involving frame loom and non-loom techniques with

discussions of the tools, materials, heritage, and modern application of each craft covered.

**283,284 Design.** Semester courses; 1 lecture and 3 studio hours. 2, 2 credits. Prerequisite: permission of instructor. Exploration into design and innovative techniques aiding the designer/craftsman.

**301,302/401,402 Advanced Metalsmithing or Jewelry.** Semester courses; 3, 6, or 9 credits per semester. Hours to be arranged. Prerequisite: CRA 201-202 or 211-212. This course offers opportunity for specialization and development of techniques.

**321,322/421,422 Advanced Woodworking and Furniture Design.** Semester courses; 3, 6, or 9 credits per semester. Hours to be arranged. Prerequisite: CRA 221-222. Advanced design and construction, investigation of varied materials, and machine processes.

**341,342/441,442 Advanced Ceramics.** Semester courses; 3, 6, or 9 credits per semester. Hours to be arranged. Prerequisite: CRA 241-242. Advanced problems in the design and production of functional and non-functional ceramic products.

**351, 352/451,452 Glassworking.** Semester courses; 2 lecture and 3, 12 studio hours. 3, 6 credits per semester. Hours to be arranged. Prerequisite: permission of instructor. This course is concerned with techniques of forming molten glass, glass formulation and/or cold-working processes, and decoration of glass objects by etching, engraving, and/or fired enamels.

**361,362/461,462 Advanced Textiles.** Semester courses; 3, 6, or 9 credits per semester. Hours to be arranged. Prerequisite: CRA 261-262. Advanced work in contemporary and traditional weaving techniques.

**363,364 Fabric Design.** Semester courses; 2 lecture and 3 studio hours. 3, 3 credits. Prerequisite: CRA 261-262 or permission of instructor. An investigation of fabric design techniques such as batik and screen printing.

**367-368 Tapestry.** Semester courses; 2 lecture and 3 studio hours. 3, 3 credits. Prerequisite: CRA 261-262. Origins of history of tapestry forms and execution of techniques.

**385,386/485,486 Educational and Recreational Crafts.** Semester courses; 2 lecture and 3 studio hours. 3, 3 credits. An experimental concentration in the minor crafts.

**387,388/487,488 Experimental Materials and Techniques.** Semester courses; 2 lecture and 3 studio hours. 3, 3 credits. Permission of instructor required. Experimentation and research into new materials and techniques.

**446/546 Kiln Design.** Semester course; 3 lecture hours. 3 credits. Study and experimentation in the factors involved in the design, construction, and operation of ceramic kilns.

**447/547 Ceramic Technology.** Semester course; 3 lecture hours. 3 credits. Study of ceramic materials through calculation and experimentation.

**482 Senior Seminar.** Semester course; 1 lecture hour. 1 credit. Semester course to be offered during second semester of each year. Resume and portfolio preparation, small business practices and selling, exhibition, and other topics deemed necessary to the producing craftsman.

**490/590 Special Topics and Practicum.** Semester course; 1-3 credits. May be repeated for a maximum of 6 credits. Prerequisite: permission of instructor. A topical seminar/workshop offered in a variety of craft subjects or issues not included in the regular curriculum. See schedule of classes for particular topic(s) to be covered each semester.

**491,492 Fieldwork.** Semester courses; 18 studio hours. 6, 6 credits. Prerequisite: consent of department head. Senior students are assigned on an individual basis. Fieldwork supervisor will arrange student's work and evaluate his performance.

## COURSES IN FASHION DESIGN (FDE)

**201-202 Clothing Construction.** Continuous course; 6 studio hours, 2-2 credits. Introducing the principles involved in garment construction with emphasis on professional design-room practices as to sewing, pressing, and finishing of garments. For fashion majors only.

**203-204 Apparel Design I.** Continuous course; 3 studio hours, 1-1 credits. Emphasizing fashion fundamentals as to lines, colors, texture, etc.; enhancing figure assets and nullifying faults. The cultivation of style sense and the acquisition of elegance and individuality. Also a study of outstanding designers. For fashion majors only.

**205-206 Pattern Drafting.** Continuous course; 1 lecture and 3 studio hours. 2-2 credits. Fundamental principles of patternmaking, developing various styles from the master pattern, creating original designs to be constructed in muslin. For fashion majors only.

**207-208 Fashion Drawing I.** Continuous course; 3 studio hours. 1-1 credits. Introducing drawing of the fashion-figure and apparel, sketching in pencil, using water color efficiently, and developing skill in quick fashion sketching. For fashion majors only.

**209 Textile Laboratory.** Semester course; 3 lecture hours. 3 credits. A study of fabric construction, finishes, and the properties of natural and manmade fibers. Fabric samples are studied in relation to their usage from the designer's point of view.

**211,212 Beginning Dressmaking.** Semester courses; 1 lecture and 2 studio hours. 2, 2 credits. Students are exposed to basic sewing with emphasis on detailed construction, basic fitting, and pressing techniques. Simple garments will be constructed from commercial patterns. Not offered for credit to fashion design majors. Offered in evenings and summers only.

**301-302 Draping and Design.** Continuous course; 1 lecture and 9 studio hours. 4-4 credits. Fundamentals of muslin draping on the dress form, development of



designs from sketches, and creation of original designs. For fashion majors only.

**303-304 Apparel Design II.** Continuous course; 3 studio hours. 1-1 credits. Prerequisite: FDE 203-204. Exposure to sources for design inspiration to stimulate original designs. Sources include costume research, field trips, music, nature, and study of various cultures. For fashion majors only.

**305-306 Pattern Development and Production Techniques.** Continuous course; 1 lecture and 9 studio hours. 4-4 credits. Prerequisites: FDE 201-202 and 205-206. Methods of developing and grading standard size patterns. Layout, cutting, and construction of garments as demanded in the garment industry. For fashion majors only.

**307-308 Design in Millinery.** Continuous course; 1 lecture and 6 studio hours, 3-3 credits. Fundamental techniques of millinery construction in the use of various media. Professional standards of originality, suitability, and proficiency are emphasized. For fashion majors only.

**309,310 Flat Pattern Design Workshop.** Semester courses; 1 lecture and 2 studio hours. 2, 2 credits. The development of original ideas with the use of a basic pattern. Emphasis on designing, drafting patterns, and fitting muslin patterns for construction. Not open to fashion design majors. Offered evenings only.

**311,312 Advanced Dressmaking Techniques.** Semester courses; 1 lecture and 2 studio hours. 2, 2 credits. The emphasis is on teaching professional methods and designer techniques in the construction of garments. Commercial or original designs may be used. Not open to fashion design majors. Offered evenings only.

**313-314 Fashion Drawing II.** Continuous course; 3 studio hours. 1-1 credits. Prerequisite: FDE 207-208. Developing and illustrating original designs as finished fashion plates. For fashion majors only.

**315 Fashion Workshop.** Semester course; variable credits, 1-2 per semester, may be repeated for a maximum total of 6 credits. Prerequisite: FDE 201 or equivalent. A topical workshop offered in various areas of fashion design not included in the regular curriculum. See schedule of classes for particular area to be covered each semester.

**401-402 Design Studio.** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. Prerequisites: FDE 301-302 and 303-304. Varied class and individual design problems encouraging development of ideas through any medium. Individual research projects are required. Second semester devoted to preparations for the annual fashion show. For fashion majors only.

**403-404 Fashion Drawing III.** Continuous course; 3 studio hours. 1-1 credits. Prerequisites: FDE 313-314. The preparation of designer collections in portfolio form. Students are exposed to various techniques in fashion illustration. For fashion majors only.

**405-406 Design in Tailoring.** Continuous course; 1

lecture and 9 studio hours. 4-4 credits. Prerequisite: FDE 305-306. Custom tailoring required in high fashion establishments and the coordination of design, fabric, and model of individual garments. Second semester devoted to preparations for the annual fashion show. For fashion majors only.

**407 Merchandising.** Semester course; 3 lecture hours. 3 credits. A practical survey of the activities that are essential to the production of profit.

**408 Retail Operations.** Semester course; 3 lecture hours. 3 credits. Theories and practices of retail management and sales promotion.

**411 Display.** Semester course; 3 lecture hours. 3 credits. Theory and practice of the principles of effective interior and show window display techniques.

## COURSES IN INTERIOR DESIGN (IDE)

**103-104 Introductory Studio Course.** Continuous course; 1 lecture and 2 laboratory hours. 2-2 credits. A practical course in which the student becomes familiar with fundamentals of interior design through work with floor plans, furniture selection and arrangement, floor and wall composition, color harmony, wall paper, and other aspects of design. Not open to interior design majors. Offered evenings only.

**201-202 Beginning Interior Design Studio.** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. The elements of design, color theory, and major considerations in the selection and placement of furnishings are taught and developed through a series of varied problems. The student then makes use of this information in designing and furnishing complete interiors. Interior design majors only.

**203-204 Introduction to Architecture.** Continuous course; 1 lecture and 6 studio hours. 3-3 credits. Architectural and structural theory, design, drawing, and blueprint reading.

**211,212 Introduction to Interior Design.** Semester courses; 3 lecture hours. 3, 3 credits. An analysis of the fundamentals of interior design through the study of furniture selection and arrangement, color, composition, textiles, accessories, and other interior components.

**217,218 Great Houses and Monuments: Europe and America.** Semester course; 3 lecture hours. 3, 3 credits. Profusely illustrated lectures for those interested in historical architecture and furnishings. First semester: continental Europe. Second semester: England and America. Also valuable for persons anticipating European travel. Offered evening only.

**221-222 Interior Design Graphics.** Continuous course; 1 lecture and 6 studio hours. 3-3 credits. Introduction to the various presentation media and techniques to provide basic communication skills such as drafting, rendering, perspective drawing, layout organization, and model making for professional graphic presentations.

**301-302 Environmental Factors.** Continuous course; 1 lecture and 6 studio hours. 3-3 credits. Support systems such as acoustics, illumination, heating, air conditioning, and plumbing are discussed and in the studio the principles are applied to interior situations. Interior design majors only.

**311-312 Commercial Design.** Continuous course; 2 lecture and 12 studio hours. 6-6 credits. Function and design is emphasized within a specific contract environment. This includes layouts, details, and specifications for professional presentation. Interior design majors only.

**321-322 Interior Design and Architecture.** Continuous course; 3 lecture hours. 3-3 credits. Prerequisites: ARH 103, 104, or AFO 105-106. A survey of the major styles in interior and exterior architecture and furnishings dating from ancient Greece. Emphasis is given to the styles in Italy, France, England, and America from the Renaissance to the middle of the nineteenth century.

**331-332 Business Procedures.** Continuous course; 3 lecture hours. 3-3 credits. Study of interior design business practices and workroom procedures. Interior design majors only.

**401-402 Advanced Interior Design.** Continuous course; 2 lecture and 9 studio hours. 5-5 credits. Problems exploring period and contemporary design and their relationships are planned to meet the needs of specific clients. In keeping with the endeavor to prepare the students for the professional world, the problems are as varied as possible. Interior design majors only.

**411-412 Trade Sources.** Continuous course; 2 lecture hours. 2-2 credits. Comparative analysis of the major sources of supply and their products. When convenient, manufacturers' representatives will meet with the class.

**421-422 Furniture Design and Construction.** Continuous course; 1 lecture and 6 studio hours. 3-3 credits. Original student furniture designs are developed through a coordinated study of structure and materials.

**441 Survey of Modern Architecture.** Semester course; 3 lecture hours. 3 credits. General survey of the field of architecture. An analysis of the works of architects from the nineteenth and twentieth centuries. Offered in evening only.

## COURSES IN APPLIED MUSIC (APM)

**101,102/201,202/301,302/401,402 Private Instruction: Principal and Secondary Performing Mediums.** Semester courses; one half-hour or one hour private lesson per week. 1 or 3 credits. Extra fee required. Hour lessons are primarily for music students on major instrument and require 1 hour per credit per day practice time. All non-majors should register at 100 level except with permission of department chairman. Sections: piano, voice, organ, percussion, flute, oboe, clarinet, saxophone, bassoon, classical guitar, trumpet, trombone, baritone, French horn, tuba, violin, viola, cello, double bass, harpsichord, composition (offered

on 300 and 400 levels for 3 credits, with permission of instructor), harp, carillon (offered only for 1 credit), synthesizer, and drum set.

**173-174, 273-274 Keyboard Skills.** Continuous course; 2 laboratory hours. 1-1 credit. Acquisition of keyboard performance skills with emphasis on reading, keyboard harmony, and improvisation. Open only to music majors.

**181-182 Class Lessons in Strings.** Continuous course; 2 laboratory hours. 1-1 credit. Achievement of performance competencies on violin, viola, cello, or string bass. Acquisition of basic techniques on two additional string instruments.

**183-184 Class Lessons in Woodwinds.** Continuous course; 2 laboratory hours. 1-1 credit. Achievement of performance competencies on flute, clarinet, oboe, bassoon, or saxophone. Acquisition of basic techniques on two additional woodwind instruments.

**185-186 Class Lessons in Brass.** Continuous course; 2 laboratory hours. 1-1 credit. Achievement of performance competencies on trumpet, baritone, tuba, trombone, or French horn. Acquisition of basic techniques on two additional brass instruments.

**187-188 Class Lessons in Percussion.** Continuous course; 2 laboratory hours. 1-1 credit. Achievement of performance competencies on snare drum. Acquisition of basic techniques on xylophone or timpani.

**191-192 Class Lessons in Piano.** Continuous course; 2 laboratory hours. 1-1 credit. Acquisition of performance competencies at the keyboard with emphasis on finger dexterity and reading. No prior knowledge of music required. Not open to music majors.

**193-194 Class Lessons in Voice.** Continuous course; 2 laboratory hours. 1-1 credit. Acquisition of performance competencies in voice including vocal production, diction, solo, and group performance.

**195-196 Class Lessons in Guitar.** Continuous course; 2 laboratory hours. 1-1 credit. Acquisition of performance competencies in guitar including chording, single-string technique, plectrum, and finger styles.

**197-198 Class Lessons in Organ.** Continuous course; 2 laboratory hours, 1-1 credit. Prerequisite: consent of instructor. Achievement of performance competencies in organ including pedal technique, coordination of hands and feet, and registration.

**203 Sight Reading.** Semester course; 1 lecture hour. 1 credit. A practical course for singers and instrumentalists designed to develop facility in sight reading.

**251/451 Large Ensembles.** Semester courses; 3 laboratory hours. 1 credit. Sections (1) orchestra, (2) concert band, (3) symphonic band, (4) chorus, (5) university-community chorale, (6) nurses glee club, (7) chamber orchestra. (Auditions required for sections 1, 3, and 4.) Each section may be repeated up to six times for credit.

**253/453 Chamber Music.** Semester course; 4 laborat-

ory hours. 1 credit. A flexible program designed to involve students in the performance of a wide range of chamber music. Included are conducting and reading experience with the conducting band and chorus in which all chamber music students participate. Each section may be repeated up to six times for credit.

**255/455 Small Ensembles.** Semester course; 3 laboratory hours. 1 credit. Sections: (1) stage band, (2) madrigalists, (3) collegium musicum, (4) jazz-rock band, (5) opera workshop, (6) accompanying, (7) percussion ensemble, (8) trombone ensemble, (9) percussion lab ensemble, (10) clarinet choir. (Auditions required for all sections.) Each section may be repeated up to six times for credit.

**313,314 Performance Practice.** Semester courses; 2 lecture and 2 laboratory hours. 3, 3 credits. A study of performance practices of ornamentation and interpretation of music literature. The first semester treats music from the sixteenth and seventeenth centuries. The second semester treats that of the seventeenth and eighteenth centuries.

**381-382 Conducting.** Continuous course; 1 lecture and 2 laboratory hours. 2-2 credits. The student will put in practice his elementary knowledge of conducting to solve complicated or unusual musical situations such as those of irregular meters, conducting from the keyboard, and uncommon scoring.

**383,384 Musical Theater.** Semester courses; 4 laboratory hours. 2, 2 credits. Prerequisite: APM 193 or equivalent. An exploration of the fundamentals of musical theater including production, staging, and performing. Each course may be repeated for credit three times.

**393 Junior Project.** No credit. Individual research project in the student's major field under the supervision of faculty.

**394 Junior Recital.** No credit. Public presentation of a half-length recital.

**411,412/511,512 Score Reading.** Continuous course; 2 laboratory hours. 1-1 credit. Prerequisite: APM 274 or equivalent. A progressive course in reducing scores at the keyboard, beginning with simple choral scores and progressing to full orchestra and band. No degree credit for graduate composition majors.

**413,414 Performance Practice.** Semester courses; 2 lecture and 2 laboratory hours. 3, 3 credits. A study of performance practices of ornamentation and interpretation of music literature. The first semester treats music from the eighteenth and nineteenth centuries. The second semester covers that of the nineteenth and twentieth centuries.

**463-464/563-564 Pedagogy.** Continuous course; 2 lecture hours. 2-2 credits. A study of the musical, physiological, and psychological aspects of teaching instruments or voice. Second semester will include practical experience in teaching students under faculty supervision. Section: (1) piano, (2) voice, (3) organ, (4)

percussion, (5) brass, (6) woodwinds, (7) strings, (8) guitar.

**473-474 Improvisation.** Continuous course; 4 laboratory hours. 2-2 credits. A course in which, through analysis, the student will acquire a knowledge of basic materials which will provide a foundation for improvisation or extemporization.

**493 Senior Project.** No credit. Individual research project in the student's major field under the supervision of faculty.

**494 Senior Recital.** No credit. Public presentation of a full-length recital.

## COURSES IN CHURCH MUSIC (CHM)

**331 Church Music I.** Semester course; 2 lecture hours, 2 credits. The organization of multi-choir programs in the church; children's choir methods and materials; handbell choirs.

**332 Organ Practicum.** Semester course; 2 lecture hours. 2 credits. The development of skills necessary for church service playing: transcription of piano and orchestral scores; accompanying and hymn playing; conducting from the console; the accompaniment of chant.

**333 Organ Design.** Semester course; 2 lecture hours. 2 credits. A study of the design and construction of the organ with emphasis on the styles developed by master builders of various eras.

**431 Hymnology.** Semester course; 2 lecture hours. 2 credits. A study of hymns and hymn tunes with emphasis on their development, style, and functions.

**432 Church Music II.** Semester course; 2 lecture hours. 2 credits. A survey of adult choir literature including anthems, cantatas, oratorios, and service music.

**435 Liturgics.** Semester course; 2 lecture hours. 2 credits. A study of the forms of public worship emphasizing the orders in current usage. The planning of weekly and special services.

**437-438 Field Work in Church Music.** Continuous course. 1-1 credit. Prerequisite: a position in a church is required for this course. Actual experience in playing for services and/or conducting a church choir as a steady, regular job, supervised by the instructor.

## COURSES IN MUSIC COMPOSITION (MUC)

**301 Classical Formal Techniques.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MHT 222 or permission of instructor. The expansion of a brief musical statement into a larger structure with related sections.

**314 Contrapuntal Techniques.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MHT 222 or

permission of instructor. Composition and study of devices and methods used to combine two or more simultaneous melodies.

**403 Composition for the Theater.** Semester course; 3 lecture hours, 3 credits. Prerequisite: MUC 301. Composition involving the special problems posed by the demands of opera, musical shows, ballet, or other music which is allied with drama or dance.

**404 Composition for Modern Popular Media.** Semester course; 3 lecture hours, 3 credits. Composition for various facets of popular commercial music.

**405/505 Twentieth Century Techniques.** Semester course; 3 lecture hours, 3 credits. Prerequisite: MHT 222 or permission of instructor. Composition in and analysis of techniques associated with late Romanticism, Impressionism, Neo-Classicism, Expressionism, Serialism, and current avant-garde music. No degree credit for graduate composition majors.

**406/506 Advanced Scoring Techniques.** Semester course; 3 lecture hours, 3 credits. Application of idiomatic scoring devices for orchestral instruments and voices in both large and small combinations. No degree credit for graduate composition majors.

**417/517 Introduction to Electronic Music.** Semester course; 2 lecture and 2 laboratory hours, 3 credits. A study of laboratory techniques and composing for electronic instruments.

**418/518 Electronic Music Control Systems.** Semester course; 2 lecture and 2 laboratory hours, 3 credits. Prerequisite: MUC 417/517. A study and application of analog/digital control techniques used in electronic music composition.

**425, 426/525, 526 Projects in Electronic Music.** Semester courses; 4-12 laboratory hours, 2-6 credits. Prerequisite: permission of instructor. Each course may be repeated for a maximum of 12 credits. Completion of selected projects in electronic module design and/or electronic music composition.

## **COURSES IN MUSIC EDUCATION (MUE)**

**461-462/561-562 Introduction to Ethnomusicology in Education.** Continuous course; 3 lecture hours, 3-3 credits. Development of competence in interpretation of world music in terms of cultural context; metric, rhythmic, and melodic concepts; structural principles; textural phenomena; and timbres produced by instruments from other cultures.

**471 Methods and Materials (Elementary).** Semester course; 3 lecture hours, 3 credits. Curriculum, materials, and procedures for music instruction in the elementary and intermediate grades; supervision as related to the specialist teacher.

**472 Methods and Materials (Secondary).** Semester course; 3 lecture hours, 3 credits. Curriculum, materials, and procedures as they apply to the development

of the music program in the secondary schools. Problems of music administration, scheduling, staff, equipment, finances, and public relations.

**475/575 Aspects of Popular Music.** Semester course; 3 lecture hours, 3 credits. At the completion of the course, the students shall be able to articulate a thoughtful perspective of so-called "Classical Music and Pop Music," as well as be able to explicate the intellectual, aesthetic, and cultural aspects of this music. Open to both music majors and non-majors; no degree credit for undergraduate music majors.

**476/675 The Phenomenon of "Rock".** Semester course; 3 lecture hours, 3 credits. After analyzing the formal musical principles and the socio-literary phenomenon of rock music, as reported in rock newspapers, books and articles, and record jackets, etc., the student shall be able to offer cohesive and logical evidence, verbally and through position papers, which will lead to a clearer definition and understanding of this youth movement. He will also be able to cite, with corroborative evidence, an accurate survey of its historical development.

**479 Music Instrument Repair.** Semester course; 2 laboratory hours, 1 credit. A study of problems related to intonation and tone quality in band and orchestra instruments; the relationship of mouthpieces and reeds to intonation, emphasis on acquiring knowledge and skill in the care and repair of music instruments.

**481-482 Music for Elementary Classroom Teachers.** Continuous course; 3 lecture hours, 3-3 credits. Development of basic creative and performance competencies and the translation of these competencies into classroom activities.

**487 Rhythms for Elementary-Aged Children.** Semester course; 3 lecture hours, 3 credits. Significant contributions of rhythmic activity to the social, physical, emotional, intellectual, and musical growth of children. Fundamental rhythms, singing songs and games, traditional folk and national dances, creative movement, and the use of practical classroom materials in music education will be presented.

**488 Music Education Seminar.** Semester course; 2 lecture hours, 2 credits. Independent investigation of problems in music education.

## **COURSES IN MUSIC HISTORY, LITERATURE, AND THEORY (MHT)**

**105-106 Fundamentals of Music Theory.** Continuous course; 3 lecture hours, 3-3 credits. At the completion of the course students will be able to harmonize melodies in triadic style, write and arrange short compositions, and notate them correctly. No degree credit for music majors.

**121-122/221-222/321-322 Literature and Structure of Music.** Continuous courses; 3 lecture and 6 laboratory hours, 6-6 credits. A six-semester sequence during which the fundamental precepts of music history,

music theory, aesthetics, base musicianship, and other pertinent elements of the art of Western music are studied. The basis of the study is artistic work from the past and present which embodies characteristics representative of any given historical or technical level; the procedure of the study is deductive—lectures and readings of background materials lead to analysis and performance together with discussions of specific works from which can be inferred the fundamental elements of a particular style. These are then used as guides for creative composition by each student.

**201 Acoustics.** Semester course; 3 lecture hours. 3 credits. A study of the physical properties of sound and their employment in creating music.

**243, 244 Appreciation of Music.** Semester courses; 3 lecture hours. 3, 3 credits. Designed to encourage intelligent listening and understanding of finer music from all periods. Not open to music majors.

**245, 246/Afro-American Studies 245, 246 Introduction to Afro-American Music.** Semester courses; 3 lecture hours. 3, 3 credits. An introductory survey of black involvement with the development of music in America from 1607 to the present. Afro-American musical styles will be studied from many aspects, including their African roots and contemporary popular expression.

**303, 304 Piano Literature.** Semester courses; 2 lecture hours. 2, 2 credits. A survey of stringed keyboard literature. Historical, formal, and stylistic considerations of the various periods and composers of keyboard music. Listening and reading assignments included.

**334 Organ Literature.** Semester course; 2 lecture hours. 2 credits. A survey of organ music.

**401 Seminar in Music History.** Semester course; 2 lecture hours. 2 credits. Research and discussion of selected topics in music history and literature. May be repeated for a maximum of six credits.

**405 Theory of Modern Popular Music.** Semester course; 3 lecture hours. 3 credits. A study of popular American music during the twentieth century, with special emphasis on improvisatory techniques.

**407 Arranging Modern Popular Music** Semester course; 3 lecture hours. 3 credits. Adapting and scoring music for ensembles incorporating popular commercial performance styles.

**411, 412/511, 512 Theory Review.** Semester courses; 2 lecture hours. 2, 2 credits. First semester: Renaissance and Baroque counterpoint; second semester: common practice, chromatic, and 20th century harmony. Both semesters include conceptual, analytical, and compositional techniques.

**413/513 Arranging.** Semester course; 3 lecture hours. 3 credits. Practical, technical, and conceptual considerations of arranging and transcribing for vocal and instrumental groups will be explored. Students will demonstrate competence in these creative areas to the optimum level of school and/or church music organizations.

**421-422/521-522 Survey of Music History.** Continuous course; 3 lecture hours. 3-3 credits. A study of Western music in an historical context from antiquity to the present.

**431 Homophonic Harmony I 1450-1750 A.D.** Semester course; 3 lecture hours. 3 credits. An analytical study of music and music writings from early years of Western homophony. Special emphasis placed on figured-bass techniques.

**432 Homophonic Harmony II 1750-Present.** Semester course; 3 lecture hours. 3 credits. A study of music and writings concerning more recent homophonic styles.

**441/541 American Music.** Semester course; 2 lecture hours. 2 credits. The growth and development of music in the United States from 1607 to the present. While the chief concentration will be upon art music and church music, folk music, jazz, and the other forms for popular expression will be included.

**442/542 Twentieth Century Music.** Semester course; 2 lecture hours. 2 credits. Impressionistic, expressionistic, neo-classic, and neo-romantic influences and styles of music. Development of new sound generating techniques and methods for ordering the new tonal materials.

**443-444 Introduction to Music Research.** Continuous course; 3 lecture hours. 3-3 credits. A study of research methods, bibliographic materials in music, and organization and preparation of research papers. Second semester will involve assigned research and writing on selected topics.

**451, 451/551, 552 Orchestral Repertoire.** Semester courses; 1 lecture hour (1 credit) or 1 lecture and 2 laboratory hours (2 credits). Performance and study of selected major symphonic works from historical, analytical, and stylistic perspectives. Research reports will include comparisons of interpretations. Repertoire will consist of basic audition pieces selected by orchestras. Laboratory sessions will utilize available instrumentation for performance.

**465, 466 Vocal Literature.** Semester courses; 2 lecture hours. 2, 2 credits. A survey of the vocal literature of Germany, France, England, and other countries. Students will perform material.

**481/581 Topics in Music.** Semester course; variable credit. 1-3 credits per semester; may be repeated for a maximum of 9 credits. Flexible term courses in selected aspects of music performance, theory, literature, or history. See schedule of classes for specific topics to be offered each semester.

## COURSES IN PAINTING AND PRINTMAKING (PAP)

**155-156 Drawing and Painting, Basic.** Semester course; 3 studio hours. 1-1 credit. Introduction to painting with emphasis on learning basic techniques. Discussion of materials and their use. Models—both nude and clothed are used.

Open to non-arts majors by permission of the department chairman.

**205-206 Painting, Basic Composition.** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. First semester: an introduction to the use of paints with an emphasis on the organization of the artistic image, through the use of plastic form and color. Second semester: intensification of painting problems coupled with analysis of historical and contemporary work.

**207 Materials: Painting.** Semester course; 1 lecture and 6 studio hours. 3 credits. An in depth investigation of traditional and contemporary painting materials, emphasis on developing technical facility.

**209 Materials: Printmaking.** Semester course; 1 lecture and 6 studio hours. 3 credits. An historical examination of the processed image with a technical survey of print media in screen printing, lithography, and etching.

**221-222 Drawing, Basic.** Continuous course; 9 studio hours, 3-3 credits. Drawing instruction with attention to extension of the student's knowledge of the tools of drawing. Materials and techniques will be related to pictorial organization.

**305-306 Painting, Intermediate.** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. Primary emphasis on the development of an individual direction in the context of contemporary ideas and images in painting.

**315-316 Printmaking, Intermediate (Planographics).** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. Investigation of techniques and technical printing problems in planographic printing processes from stones and plates.

**317-318 Printmaking, Intermediate (Intaglio).** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. Investigation of intaglio printmaking; drypoint, etching, engraving, aquatint, soft grounds, and related techniques.

**319-320 Printmaking, Intermediate (Screenprinting).** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. An investigation of cut, hand-drawn, and photographic stencil techniques and printing on a variety of surfaces.

**321-322 Drawing, Intermediate.** Continuous course; 9 studio hours. 3-3 credits. Drawing for advanced students with special emphasis on creative response to the drawing as a work of art.

**355-356 Drawing and Painting, Intermediate.** Semester course; 9 studio hours. 3-3 credits. Intermediate instruction in drawing and painting. Models, both nude and clothed, and still life are used.

**405-406 Painting, Advanced.** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. More ambitious projects with the aim of developing in the senior student a highly professional approach and achievement in his work: individual as well as group discussions.

**407-408 Painting, Advanced, II.** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. Advanced painting with emphasis on the direction of the individual student's creative work and his ability of problem solving.

**409-410 Painting, Advanced, III.** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. Advanced painting dealing with personal concepts developed by the student's own investigations.

**415-416 Printmaking, Advanced (Planographic).** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. Specialization in one medium with emphasis upon technical research and aesthetic suitability of the design to the particular medium used.

**417-418 Printmaking, Advanced (Etching).** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. Further investigation of intaglio printmaking with specialization in one medium.

**419-420 Printmaking, Advanced (Screenprinting).** Continuous course; 2 lecture and 6 studio hours. 4-4 credits. Further exploration of cut, hand-drawn, and photographic stencil techniques and printing on a variety of surfaces.

**421-422 Drawing, Advanced.** Continuous course; 9 studio hours. 3-3 credits. A studio for drawing with individual criticism. Special attention is given to contemporary concepts.

**455-456 Drawing and Painting, Advanced.** Semester course; 9 studio hours. 3-3 credits. Advanced instruction in drawing and painting. Models, both nude and clothed, and still life are used.

## COURSES IN PHOTOGRAPHY (PYT)

**243-244 Basic Photography.** Continuous course; 1-2 lecture and 3 studio hours. 2-3 credits. Study of fundamental camera techniques and basic photographic processes in relation to visual communication. An emphasis will be placed on photography's expressive possibilities. Adjustable camera required.

**301-302 Basic Photo-Journalism.** Continuous course; 2 lecture and 2 laboratory hours. 3-3 credits. Study of fundamentals of photography and techniques of camera use in relation to the fields of journalism and visual communications. Adjustable camera required.

**309-310 Photography Workshop.** Continuous course; 1 lecture and 6 studio hours. 3-3 credits. Prerequisite: PTY 243-244 or equivalent. An individual workshop giving students an opportunity to develop their personal approach to the photographic media. Adjustable camera required.

**325-326 The Zone System.** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: PTY 243-244 or permission of instructor. Lectures deal with the testing of camera, lens, films, and printing methods to allow the student to previsualize images made in the camera.

**345-346 Intermediate Photography.** Continuous



course; 1 lecture and 3 studio hours. 2-2 credits. Prerequisite: PTY 243-244. Class problems in advanced photographic techniques. Emphasis is placed on individual solutions to various photographic problems.

**371-372 Cinematography.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. Prerequisite: PTY 243-244. The production of motion picture films with emphasis on fundamental shots and transitional elements. Students work in teams assisted by faculty.

**375-376 Basic Filmmaking.** Continuous course; 2 lecture and 3 studio hours. 3-3 credits. The production of motion picture films with emphasis on techniques of camera operation and scene design. Students work in teams and work in the super 8mm format.

**377 The Film Image.** Semester course; 3 lecture hours. 3 credits. An examination of production techniques and problems encountered by the filmmaker in creating the motion picture image. A selected number of entertainment films, documentaries, topical films, and others will be viewed as source material and will be dealt with from a production point of view.

**409-410 Workshop.** Continuous course; 1 lecture and 6 studio hours. 3-3 credits. Prerequisite: prior photography experience necessary. A workshop dealing with the color negative positive printing process.

**445-446 Color Photography.** Continuous course; 1 lecture and 6 studio hours. 3-3 credits. Prerequisite: PTY 345-346. A workshop dealing with various color processes and professional work.

**475-476 Filmmaking Workshop.** Continuous course; 1 lecture and 6 studio hours. 3-3 credits. Prerequisite: permission of instructor. The production of a motion picture to be directed by faculty with the assistance of students in the various production crew roles.

**481-482 Advanced cinematography.** Continuous course; 1 lecture and 6 studio hours. 3-3 credits. Prerequisite: PTY 371-372. The production of motion picture films with emphasis on the making of a sound motion picture of professional quality. Students will work in teams, assisted by faculty.

**490-491 Motion Picture Special Effects.** Continuous course; 1 lecture and 6 studio hours. 3-3 credits. Prerequisite: permission of instructor. An exploration of special effects for film production which may be created both in the camera and with a printer.

## COURSES IN SCULPTURE (SCU)

**209,210 Introduction to Sculpture.** Semester courses; 2 lecture and 3 studio hours. 3, 3 credits. The course will offer an opportunity for students to work with some of the ideas and materials of sculpture through slides, lecture, and studio involvement.

**211,212 Sculpture, Basic.** Semester courses; 2 lecture and 6 studio hours. 4, 4 credits. Basic sculptural concepts are introduced which acquaint the student not only with traditional materials and techniques but also with plastics, metals, and their fabrication. Introduction is made to the utilization of shops, tools foundry, and casting. School of the Arts majors only.

**217,218 Sculptural Concepts.** Semester courses; 3 lecture and 3 studio hours. 4, 4 credits. Prerequisite: permission of instructor. A study of contemporary technology, philosophy, criticism, and their relation to material resources and technical practices.

**311,312 Sculpture, Intermediate.** Semester courses; 2 lecture and 6 studio hours. 4, 4 credits. Work in a great variety of materials and ideas; also experimenting with media such as plastics and special techniques. Emphasis on direct work and creative independence. School of the Arts majors only.

**313,314/413,414 Dimensional Concepts.** Semester courses; 2 lecture and 6 studio hours. 4, 4 credits. Prerequisite: permission of instructor. Opportunities for sculptors to examine diverse situations as an extension of the more traditional concept of material object-making.

**411,412 Sculpture, Advanced.** Semester courses; 2 lecture and 6 studio hours or 3 lecture and 9 studio hours. 4 or 6 credits. Emphasis on large sculpture. Development of the individual's personal style is encouraged. School of the Arts majors only.

## COURSES IN THEATRE (THE)

**101-102 Speech for the Stage I.** Continuous course; 4 studio hours. 2-2 credits. Exploration and application of voice production, placement, and projection techniques. Open only to theatre majors or with permission of instructor.

**103 Stagecraft.** Semester course; 3 lecture hours. 3 credits. The fundamental methods, materials, and techniques of set construction for the stage. Participation in departmental productions.

**104 Costume Construction.** Semester course; 3 lecture hours. 3 credits. The fundamental methods, materials, and techniques of costume construction for the stage. Participation in departmental productions.

**105-106 Movement for the Stage I.** Continuous course; 4 studio hours. 2-2 credits. A practicum in elementary movement for actors, to improve muscle tone, physical sensitivity, and relaxation. Open only to theatre majors.

**111 Introduction to Theatre.** Semester course; 3 lecture hours. 3 credits. Survey of the basic elements and theories of theatrical production; directing and design with special consideration of theatre as an artistic experience.

**113 Performing.** Semester course; 4 studio hours. 2 credits. An exploration of the general process of performing involving theatre games, role playing, and improvisation. Open only to theatre majors.

**114 Performing Environment.** Semester course; 4 studio hours. 2 credits. An exploration of the various scenic environments and conditions for performing. Open only to theatre majors.

**201-202 Speech for the Stage II.** Continuous course; 4 studio hours. 2-2 credits. Advanced study and practice in the use of the voice to include dialects, verse drama,

and choral speaking. Open to theatre majors or with permission of instructor.

**205-206 Movement for the Stage II.** Continuous course; 4 studio hours. 2-2 credits. A practicum in stage movement to develop basic physical control and performance skills. Open only to theatre majors.

**211,212 Introduction to Drama.** Semester courses; 3 lecture hours. 3, 3 credits. Analysis and critical examination of plays for methods of interpretation and production qualities. Open to theatre majors or by permission of instructor.

**213-214 Acting.** Continuous course; 4 studio hours. 2-2 credits. Prerequisite: THE 113, 114. A study of the emotional basis of acting and of the body as the expressing agent. Open only to theatre majors.

**221 Basic Scene Design.** Semester course; 3 lecture hours. 3 credits. A study of the basic techniques used in designing space for theatre productions. Participation in departmental productions.

**223-224 Practicum in Theatre Technology.** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: THE 103-104. Advanced problem solving in one or more areas of technical theatre.

**225 Basic Stage Electronics-Lighting.** Semester course; 3 lecture hours. 3 credits. A study of the properties and basic principles of electricity as they relate to the utilization of light on the stage. Participation in departmental productions.

**227-228 Basic Stage Costuming and Make-up.** Continuous course; 2 lecture and 2 studio hours. 3-3 credits. Prerequisite: THE 104 or permission of instructor. A study of the techniques used to dress the performer, including design theory and make-up application. Participation in departmental productions.

**229 Introduction to Lighting Design.** Semester course; 2 lecture and 2 studio hours. 3 credits. Basic elements of lighting design, composition, orchestration, and color. Participation in departmental productions.

**251,252/351,352/451,452 Rehearsal and Performance.** Semester courses; hours arranged. 1 to 3 credits. Work in acting and production in a major production and one-act theatre. Each student is expected to devote a minimum of 50 hours per credit per semester to receive credit.

**303/Afro-American Studies 303 Black Theatre.** Semester course; 3 lecture hours. 3 credits. A study of the major developments in the evolution of black theatre through readings and studio performances in black related and black theatre dramaturgy.

**305,306 Scene Design.** Semester courses; 1 lecture and 4 studio hours. 3, 3 credits. Prerequisite: THE 221 and permission of instructor. A study of the techniques and methods of scenic design. Participation in departmental productions.

**307-308 History of the Theatre.** Continuous course; 3 lecture hours. 3-3 credits. A study and analysis of the theatre history: the architecture, the performer and performances, the stage, the production methods, and the audience.

**309,210 History of Costume.** Semester courses; 3 lecture hours. 3, 3 credits. Illustrated lectures on the history of costume from primitive times to the present.

**313-314 Actor's Studio.** Continuous course; 6 studio hours. 3-3 credits. Prerequisite: permission of instructor. A laboratory for the serious students of acting in which the participants will prepare and polish various longer scenes for presentation and criticism. Open only to theatre majors.

**319-320 Play Production.** Continuous course; 3 lecture hours. 3-3 credits. Principles of theatre art, including scenic and costume design, technical theatre, and direction.

**321-322 Research Techniques for Costume Design.** Continuous course; 2 lecture and 2 studio hours. 3-3 credits. Prerequisite: permission of instructor. A seminar in research and design of costumes for the theatre, including discussion of fabrics and special construction methods used in stage costuming. Participation in departmental productions.

**323-324 Practicum in Advanced Theatre Technology.** Continuous course; 6 studio hours. 3-3 credits. Prerequisite: permission of instructor. Advanced problem solving in technical theatre, with special emphasis on multimedia and new design materials.

**325 Stage Management.** Semester course; 2 lecture and 2 studio hours. 3 credits. Prerequisite: permission of instructor. The fundamental responsibilities and techniques of professional stage management.

**326 Basic Stage Electronics-Sound.** Semester course; 3 lecture hours. 3 credits. A study of the basic techniques used to create sound for theatre productions. Participation in departmental productions.

**330-331/430-431/530-531 Production.** Continuous course; 15 laboratory hours. 5-5 credits. The design, rehearsal, and performance of dramatic works. Open only to theatre majors.

**335-336/435-436/535-536 Colloquium and Practical Training.** Continuous courses; 3 lecture and 6 laboratory hours. 5-5 credits. Literary, historical, and theoretical studies together with specialized voice and movement training related to dramatic works in production. Open only to theatre majors.

**340-341/440-441/540-541 Theatre Projects.** Continuous course; 15 laboratory hours. 5-5 credits. Individual or group problem solving through performance projects in an area of dramatic literature or experience related to works under production in THE 330-331/430-431. Open only to theatre majors.

**361-362 Directing.** Continuous course; 3 lecture hours. 3-3 credits. Lectures and discussions on the theories of stage direction; problems involved in the production of period plays and a study of modern theories. Open only to theatre majors.

**401,402 Professional Internship.** Semester courses; 3-9 credits. A practicum in theatre conducted in cooperation with selected professional or semi-professional theatre organizations.



**403,404/503,504 History of Dramatic Literature.** Semester courses; 3 lecture hours. 3, 3 credits. Study and analysis of dramatic literature. First semester: Aeschylus through Shakespeare. Second semester: Corneille to Ibsen.

**405-406/505-506 Advanced Scene Design.** Continuous course; 1 lecture and 4 studio hours. 3-3 credits. Prerequisite: THE 305-306 or permission of instructor. A more advanced study of the techniques, methods, and problems of scene design. Designed for the student who plans to attend graduate school or enter the profession. Participation in departmental productions.

**407/507 Advanced Scenic Technique.** Semester course; 1 lecture and 4 studio hours. 3 credits. Prerequisite: THE 221 or permission of instructor. An intensive involvement in contemporary theory and practice of scenic techniques. Participation in departmental productions.

**408/508 Scene Painting.** Semester course; 1 lecture and 4 studio hours. 3 credits. Methods of painting scenery based on traditional and contemporary theories. Participation in departmental productions. This course may be repeated for a maximum of 9 credits.

**413-414/513-514 Acting Styles.** Continuous course; 6 studio hours. 3-3 credits. Prerequisite: permission of instructor. A study of the history and theory of acting styles from the Greeks to the present. Designed for students who wish to enter the acting profession or to attend graduate school.

**415,416/515,516 Creative Dramatics.** Semester courses; 3 lecture hours. 3, 3 credits. A study of the theory of creative dramatics as it applies to elementary and secondary school education; laboratory exercise in the application of these theories to classroom processes.

**417,418 Children's Theatre.** Semester courses; 9 laboratory hours. 3, 3 credits. Prerequisite: permission of instructor. A practicum in children's theatre. Students will be required to work in one or more of the following areas: performance, directing, design, technical theatre, and management. The courses will include mounting and touring of children's theatre productions.

**419/519/Speech 419/519 Speech and Theatre Methods.** Semester course; 3 lecture hours. 3 credits. A study of the basic methods used in the teaching of theatre and speech in the secondary school.

**420 Senior Seminar.** Semester course; 3 lecture hours. 3 credits. Prerequisite: permission of instructor. Research and/or creative project in the drama major's area of special interest pursuant to graduate study or professional work in the student's chosen field.

**421,422/521,522 Advanced Costume Design.** Semester courses; 2 lecture and 2 studio hours. 3,3 credits. Prerequisite: THE 321-322 or permission of instructor. An advanced study of the techniques, methods, and

problems of costume design for the student who plans to enter the field professionally.

**423,424/523,524 Modern Drama.** Semester courses; 3 lecture hours. 3, 3 credits. Intensive study of major continental and American plays.

**425/525 Theatre Administration.** Semester course; 3 lecture hours. 3 credits. The business aspects of successful theatre operation—college, commercial, community, regional—from basic purchasing methods to publicity and "house" operation for the finished product.

**426,427 (English 426,427)/526,527 Playwriting.** Semester courses; 3 lecture hours. 3, 3 credits. A practical introduction to the creation of original play scripts for theatre, television, and motion pictures. Readings and studio performances of works in progress and completed scripts.

**428/528 Puppetry.** Semester course; 2 lecture and 2 studio hours. 3 credits. A study of puppetry as a dynamic performing art, explored through its historical traditions and practical applications.

**429 Advanced Lighting Design.** Semester course; 2 lecture and 2 studio hours. 3 credits. A study of light as a method of creating mood within stage settings. Participation in departmental productions.

**461,462/561,562 Advanced Directing.** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: THE 361-362. Further study in direction techniques, especially the problems of the full-length play.

## COURSES IN SPEECH (SPE)

**121 Effective Speech.** Semester course; 3 lecture hours. 3 credits. Speaking experiences within the basic forms of speech communication: interpersonal, small group, and public, with an emphasis on the extemporaneous situation. Voice and articulation exercises.

**301 Beginning Oral Interpretation.** Semester course; 3 lecture hours. 3 credits. Prerequisite: permission of instructor. The basic techniques of oral interpretation will be introduced. Performance will include the reading of prose, poetry, and dramatic literature.

**401-402 Oral Interpretation of Literature.** Continuous course; 3 lecture hours. 3-3 credits. Theory and practice in the analysis for oral presentation of prose, poetry, and dramatic literature.

**408/508 Speech for Teachers.** Semester course; 3 lecture hours. 3 credits. The aim of this course is to make the prospective teacher aware of his own speech and the speech practices of his pupils. Proper voice placement to avoid needless fatigue and good pronunciation as well as problems of oral communication are stressed.

**419/519/Theatre 419/519 Speech and Theatre Methods.** Semester course; 3 lecture hours. 3 credits. A study of the basic methods used in the teaching of theatre and speech in the secondary school.

## PART VII—School of Arts and Sciences

PAUL D. MINTON

Dean

ALBERT M. LYLES

Associate Dean

WILLIAM A. GLYNN

Associate Dean

JOHN H. BORGARD

Assistant Dean

WILLIAM A. DOBBIE

Assistant Dean

### DEPARTMENTS AND CURRICULA

#### Undergraduate Degree Programs

The School of Arts and Sciences offers the baccalaureate degree in 15 areas:

- biology
- chemistry
- comparative and general literature
- economics
- English
- French
- history
- mass communications
- mathematical sciences
- philosophy
- political science
- physics
- physics/engineering (dual degree program)
- psychology
- science (interdisciplinary)
- sociology and anthropology

Information concerning curricula is given in the respective departmental sections.

#### Minor Areas of Concentration

In addition to the major, a student may elect a minor area of concentration in any department offering a minor program. The minor may be used to fulfill career needs or to investigate in depth a discipline of secondary interest.

The student shall file his intention to pursue a minor through his advisor with the chairman of the major department. The courses for the minor should be chosen from those courses approved by departments offering minors in their areas.

A minimum of 18 credit hours is required for designation on the transcript as a minor, and a minimum grade point average of 2.0 must be achieved in the minor. Courses that are taken to satisfy the general education requirements for a degree in Arts and Sciences may not be counted toward a minor. Prerequisites for courses remain in effect as stated in the bulletin.

Minors are offered in the following areas; consult the departmental section of this part of the bulletin for a description of each minor.

- Afro-American studies
- American studies
- anthropology
- biology
- chemistry
- computer science

economics  
English  
French  
geography  
German  
history  
linguistics  
mathematics  
philosophy  
political science  
psychology  
religious studies  
sociology  
Spanish  
statistics

### Preparation for Professional Studies

In addition to its mission of providing studies in liberal arts at the undergraduate and graduate levels, the School of Arts and Sciences offers undergraduate preparatory programs and advising for the following areas:

pre-medicine  
pre-dentistry  
pre-veterinary medicine  
pre-law  
pre-dental hygiene  
pre-medical technology  
pre-nursing  
pre-occupational therapy  
pre-pharmacy  
pre-physical therapy  
pre-radiologic technology  
pre-engineering

The specific curricular descriptions are listed on pages 114-120 of this bulletin.

### Graduate Studies

Master's degree programs are offered in biology, chemistry, English/English education, mass communications, mathematical sciences, psychology, and sociology. Doctoral programs are available in chemistry, psychology, and social policy and social work. For details about these graduate programs, see the School of Arts and Sciences Graduate Bulletin.

### STUDENT ADVISING

An integral part of the program in the School of Arts and Sciences is individual student advising. The faculty advisor is an important personal link in the university

organization. The advisor helps the student to establish a relationship between the student's special needs and the university services, assists the student in career selection, and helps the student to understand university procedures.

Each freshman, transfer student, and readmitted student is assigned a faculty advisor by the department in which the student intends to major. Students admitted in the "undecided" category will be assigned advisors by the assistant dean.

Through consultation with his advisor and/or the dean, and frequent references to this bulletin, the student has the responsibility to make certain that the courses he selects satisfy graduation requirements set forth in his departmental major program, in the general requirements of the School of Arts and Sciences, and in the general degree requirements of the Academic Campus.

The student has the responsibility to be familiar with the academic regulations of the Academic Campus concerning change of major, continuance, etc., as expressed in Section V of this bulletin.

### GRADUATION REQUIREMENTS

For students majoring in a four year B.A. or B.S. degree program (including students in the pre-medical, pre-dental, and pre-veterinary classifications), there are three areas of requirements which the student must complete for graduation:

- I. Academic Campus requirements
- II. General requirements of the School of Arts and Sciences
  - A. Bachelor of Arts Degree or
  - B. Bachelor of Science Degree
- III. Departmental major requirements

#### I. Academic Campus Requirements

- A. **Grade Point Average.** A grade point average (GPA) of at least 2.0 (a "C" average) is required for all credits *presented* for graduation for either an associate or bachelor's degree. (Only credits taken at VCU are computed in the GPA.) A student need *present* for graduation only those credits which fulfill Academic Campus,

school, and major requirements, and together constitute a 2.0 average.

- B. **Total Credits.** A total of 124 semester credits is required for completion of either the Bachelor of Arts degree or the Bachelor of Science degree in the School of Arts and Sciences.
- C. **Major Concentration.** A grade point average (GPA) of at least 2.0 (a "C" average) is required for all credits in the student's major *presented* for graduation. (Only credits taken at VCU are computed in the GPA.) A student need *present* for graduation only those credits which fulfill the major requirement.
- D. **Upper Level Courses.** A minimum of 45 credits is required in 300 and 400 level courses for a bachelor's degree. Credits transferred from two-year institutions may not be used to fulfill this requirement.
- E. **Last 30 Credits.** Degree candidates are required to complete the last 30 credits at this institution for either an associate or bachelor's degree.

## II. General Requirements of the School of Arts and Sciences

### A. Bachelor of Arts Degree

The general requirements listed below apply to the following degree programs: chemistry, comparative and general literature, English, French, history, philosophy, and political science.

Including the Academic Campus graduation requirements listed above and those on page 58, a minimum of 124 credits, no more than four of which may be in physical education (activities), is required. Courses numbered in the 100 and 200 series comprise the lower division offerings and are open to all students; courses numbered in the 300 and 400 series comprise the upper division offerings and are generally open to juniors and seniors. (Specific courses designated by a department to fulfill one or more of the School of Arts and Sciences general requirements are listed under the Degree Requirements section of the particular de-

partment. Courses used in fulfillment of the general requirements may not be used in fulfillment of the minor. The credits are to be distributed as follows:

1. **English** (12 credits) Four courses, including
    - A. ENG 101-102 Composition and Rhetoric English Electives. Two courses to be taken above the 100 level, excluding ENG 300; 304; 305, 306; 435, 436; 437, 438; 448; 449; 450.  
All students who have not received credit for first semester freshman composition and rhetoric must take the English Placement Test. On the basis of the scores, students will be placed in the appropriate level of English, or exempted and given credit for the course.
  2. **Mathematics<sup>1</sup> or Logic** (6 credits or less)  
Students who have not started or completed the mathematics sequence indicated in their curriculum must take the Mathematics Placement Test.  
Any one of the following mathematical sciences options or the logic sequence:
    - A. **Mathematics** (6 credits or less)
      - 1) MAT 101-102 College Algebra and Trigonometry
      - 2) MAT 101 for College Algebra and Statistics 213 Introduction to Statistics, or MAT 111-112 Basic Mathematics and Elements of Calculus for the Behavioral, Social, and Management Sciences, or MAT 111 Basic Mathematics for the Behavioral, Social, and Management Sciences and 213 Introduction to Statistics
      - 3) MAT 112 Elements of Calculus for the Behavioral, Social, and Management Sciences, or STA 213 Introduction to Statistics, MAT 102 Trigonometry, or MAT 107 Algebra and Trigonometry.  
Any of the above mentioned sequences or a higher level mathematics or statistics course as determined by the Mathematics Placement Test fulfills the total requirement.
- OR**
- B. **Philosophy** 221, 222 Informal and Formal Logic (6 credits)
  3. **Foreign Language** (14 credits or less, depending on placement test results) Completion of a foreign language through the intermediate level (course 202).
    - A. Freshmen who wish to continue in their high school language will be given a placement test to determine the level at which they will begin language study for credit. Students desiring to begin study of a different language need not take the placement test and may begin with the elementary course in that language for credit.
    - B. Students transferring from other colleges and universities with advanced placement or ad-

<sup>1</sup> No more than six credits may be earned in mathematics courses numbered below the 200 level.

vanced standing in foreign language will receive credits as granted by the institution from which they are transferring. Transfer students who wish to continue in their college language must take the Language Placement Test. Transfer students who have not begun language study at the collegiate level and who wish to continue study of their high school language are subject to the provisions of the previous paragraph.

- C. New freshmen and transfer students who qualify through the intermediate level (course 202) of a foreign language on the placement test receive no semester credit for such placement but have satisfied the language requirement.
4. **History** (12 credits) Four courses from among any of the departmental offerings.
5. **Laboratory Science** (8 or 10 credits, depending on the sequence chosen) This requirement may be fulfilled from the following courses:
  - A. BIO 101-102 General Biology and BIO L101, L102 General Biology Laboratory I, II;
  - B. BIO 101, L101 General Biology and Laboratory I and four-credit biology elective;
  - C. CHE 101-102 General Chemistry and CHE L101-L102 General Chemistry Laboratory I, II;
  - D. CHE 103-104 Introduction to Modern Chemistry and CHE L103-L104 Introduction to Modern Chemistry Laboratory I, II;
  - E. PHS 107-108 Physical Science;
  - F. PHY 201-202 General Physics;
  - G. PHY 207, 208 University Physics I, II.
6. **Humanities Electives** (6 credits) Two courses from these suggested areas: art (non-studio), interdisciplinary humanities, literature (including foreign literature in English translation and upper division foreign language courses), European cultures, honors, music (non-studio), philosophy, or religious studies.
7. **Social Science Electives** (6 credits) Two courses from these suggested areas: Afro-American studies, anthropology, economics, geography, history, honors, Mass Communications 101, political science, psychology, interdisciplinary social sciences, or sociology.
8. **Major** (30 credits minimum); see major department section for exact number
9. **Approved Electives** (30 credits or less) Students should consult their advisors about the choice of electives appropriate to their departmental programs and personal interests. However, students may take as many as 12 credits of electives completely of their own choosing.

### B. Bachelor of Science Degree

The general requirements listed below apply to the following degree programs: biology, chemistry, economics, mass communications, mathematical sciences, physics, psychology, science, and sociology and anthropology.

Including the Academic Campus graduation requirements listed above and those on

page 58, a minimum of 124 credits, no more than four of which may be in physical education (activities), is required. Courses numbered in the 100 and 200 series comprise the lower division offerings and are open to all students; courses numbered in the 300 and 400 series comprise the upper division offerings and are generally open to juniors and seniors. (Specific courses designed by a department to fulfill one or more of the School of Arts and Sciences general requirements are listed under the degree requirements section of the particular department.) Courses used in the fulfillment of the general requirements may not be used in fulfillment of a minor. The credits are to be distributed as follows:

1. **English** (12 credits) Four courses, including
  - A. ENG 101-102 Composition and Rhetoric
  - B. English Electives. Two courses to be taken above the 100 level, excluding ENG 300; 304; 305; 306; 435, 436; 437, 438; 448; 449; 450. All students who have not received credit for first semester freshmen composition and rhetoric must take the English Placement Test. On the basis of the scores, students will be placed in the appropriate level of English, or exempted and given credit for the course.
2. **Mathematics**<sup>1</sup> (6 credits or less, depending on placement test results) See appropriate departmental listing for specific mathematics requirement. Students who have not started or completed the mathematics sequence indicated in their curriculum must take the Mathematics Placement Test.
3. **Foreign Language or Computer Science** Any one of the following foreign language options or the computer science sequence:
  - A. Foreign Language (8 credits or less, depending on placement test results) Completion of a foreign language through the elementary level (Course 102)
    - 1) Freshmen who wish to continue in their high school language will be given a placement test to determine the level at which they will begin language study for credit. Students desiring to begin study of a different language need not take the placement test and may begin with the elementary course in that language for credit.
    - 2) Students transferring from other colleges and universities with advanced placement or advanced standing in foreign language will receive credits as granted by the institution from which they are transferring. Students who wish to continue in their

<sup>1</sup> No more than six credits may be earned in mathematics courses numbered below the 200 level.

college language must take the Language Placement Test. Transfer students who have not begun language study at the collegiate level and who wish to continue study of their high school language are subject to the provisions of the previous paragraph.

- 3) New freshmen and transfer students who qualify through the elementary level (Course 102) of a foreign language on the placement test receive no semester credit but have satisfied the language requirement.

**OR**

**B. Computer Science (6 credits)**

This option may be fulfilled by either of the following sequences:

- 1) CSC 101 Computer Usage and Society, CSC 102 Computer Usage Project, and CSC 202 Computer Science II.
- 2) CSC 201, 202 Computer Science I and II.

**4. Laboratory Science (8 or 10 credits)** Full year in one science other than the major. (See appropriate departmental listing for specific requirement.)

**5. Humanities Electives (6 credits)** Two courses from these suggested areas: art (non-studio), interdisciplinary humanities, literature (including foreign literature in English translation and upper division foreign language courses), European cultures, honors, music (non-studio), philosophy, or religious studies.

**6. Social Science Electives (6 credits)** Two courses from these suggested areas: Afro-American studies, anthropology, economics, geography, history, honors, Mass Communications 101, political science, psychology, interdisciplinary social sciences, or sociology.

**7. Major (30 credits minimum)**

**8. Approved Electives (48 credits or less)** Students should consult their advisors about the choice of electives appropriate to their departmental programs and personal interests. However, students may take as many as 12 credits of electives completely of their own choosing.

### III. Departmental Major Requirements

The student should consult the departmental descriptions in the School of Arts and Sciences section of this bulletin for the specific major requirement.

#### UNDECIDED STUDENTS:

#### RECOMMENDED COURSES OF STUDY

Though most students are able to declare a major upon admission to the School of Arts and Sciences, some students may find that an "exploratory" program best fills their needs for the first few semesters. The undecided student and his faculty advisor will assess the general academic direction of the student's interests and plan a program of

studies to assist the student to define his academic objectives more clearly.

The student should attempt to declare a regular major no later than the semester in which he will complete his sixty-second credit (approximately two years).

Below are stated general courses of study for freshman and sophomore years in the Bachelor of Arts and the Bachelor of Science degree programs. As the undecided student begins to make a decision about a major, he should consult the specific major requirements in the School of Arts and Sciences section of the bulletin for courses which should be taken in the freshman and sophomore years.

#### Bachelor of Arts

	Credits	
	1st Sem.	2nd Sem.
<i>Freshman Year</i>		
English 101-102 .....	3	3
Mathematics or Logic .....	3	3
Laboratory Science .....	4-5	4-5
Foreign Language .....	3-4	3-4
History Electives .....	3	3
	<hr/> 16-18	<hr/> 16-18

#### *Sophomore Year*

English Electives .....	3	3
Humanities Electives .....	3	3
Social Science Electives .....	3	3
Foreign Language .....	3	3
History Electives .....	3	3
	<hr/> 15	<hr/> 15

#### Bachelor of Science

	Credits	
	1st Sem.	2nd Sem.
<i>Freshman Year</i>		
English 101-102 .....	3	3
Language or Computer Science ...	3-4	3-4
Mathematics .....	3	3-4
Laboratory Science .....	4-5	4-5
Approved Elective		
or		
Major Course .....	3	3
	<hr/> 16-18	<hr/> 16-19

#### *Sophomore Year*

English Electives .....	3	3
Humanities Electives or		
Mathematics .....	3-4	3-4



## Social Science Electives

or		
Laboratory Science .....	3-5	3-5
Major Course .....	3-4	3-4
Approved Electives .....	3	3
	<hr/> 15-19	<hr/> 15-19

**UNDERGRADUATE CREDIT BY EXAMINATION**

Recognizing that Virginia Commonwealth University enrolls students of varying backgrounds and experiences, the School of Arts and Sciences provides its students the opportunity to accelerate their education through "credit by examination." Students who feel that they have gained proficiency in a selected area may petition the department in the School of Arts and Sciences offering a course covering that area for permission to take an examination designed especially for the student seeking credit by examination.

The conditions under which credit by examination may be taken and the procedure for doing so are outlined below.

1. Examinations for credit in courses offered by the School of Arts and Sciences may be taken in the fall or spring semester of the regular academic year and during the summer sessions by any currently enrolled student.
2. No one may take an examination for a course in which he has received transfer credit or in which he has received a "D" grade at VCU.
3. Each department shall determine which of its courses, if any, may be taken by examination and the eligibility or qualifications of the student to take a specific examination.
4. The grades of A, B, C, D, or F shall be recorded on the student's permanent record. Hours attempted, hours earned, and quality points will be added to the student's permanent record. The course will be used in computation of the student's grade point average and credits used for graduation.
5. No student shall receive credit by examination for lower level foreign language courses in his native language.
6. The charge for credit for examination is \$5 per credit.
7. A student who wishes to qualify for credit by examination shall apply to the registrar for a Credit by Examination Approval Form. The registrar shall certify that the student is currently enrolled. Application for credit by examination must be made within the first four weeks of any semester of the regular academic year or during the first week of any of the regular summer sessions.
8. Students interested in pursuing Credit by Examination

through the School of Arts and Sciences should obtain from the department chairman or the university registrar a statement of procedures for payment of fees, for taking the examination(s), and for submission of the grade(s).

**FRESHMAN HONORS**

The School of Arts and Sciences offers interdisciplinary honors courses designed for superior freshmen and sophomores in any program. Honors 195 and 295 emphasize the interaction of discussion as well as independent study of such topics as "Models of Human Experience" and "Voices of Time and Space." Interested freshmen and sophomores should contact Albert M. Lyles, associate dean.

**CAREER ADVISING**

As a part of the advising process, faculty members provide information about careers and graduate study to their disciplines. In addition, a faculty member in each department has been designated as departmental career advisor and is equipped to assist a student in particular aspects of career development.

Specific advisors have also been designated in pre-law, pre-engineering, and the pre-health sciences. Consult the pre-professional sections of the bulletin or the department chairmen for their names.

**MILITARY SERVICE SCHOOL COURSES**

Degree credit to be given for the successful completion of military service school courses will be determined on a course by course basis by the dean's office in consultation with the chairman of the department in which the student is a major and with reference to the recommendation of the commission on Accreditation of Service School Experiences of the American Council on Education.

**ROTC COURSES**

The school of Arts and Sciences will accept up to eight semester credits of ROTC courses as approved electives applicable to the Bachelor of Arts or Bachelor of Science degrees. ROTC credits presented beyond that number will be considered elective

credits of the student's own choosing, a total of twelve of which are applicable to the B.A. or B.S. degrees. Applicability of ROTC courses to degree programs on the MCV Campus will be determined by the MCV Admissions Office.

### DEPARTMENTAL FACULTY LISTINGS

The Academic Campus faculty listing in the last section of this bulletin includes the 1976-1977 arts and sciences faculty. The faculty listing at the beginning of each departmental part of the School of Arts and Sciences section of this bulletin reflects the 1977-78 faculty, including the names of any new faculty known at the time of printing.

### DEGREES AND MINORS

#### MINOR IN AFRO-AMERICAN STUDIES

RUTLEDGE M. DENNIS, Coordinator

The minor in Afro-American Studies shall consist of 18 upper-level credits. Students may select AAS 103 or 104 Introduction to Afro-American Studies and at least one course in each of the following areas: 1) Africa, 2) African-Americans, and 3) Africa and African-American Arts. A minimum grade point average of 2.0 must be achieved in the minor, and courses that are taken to satisfy the general requirements for the B.S. or B.A. degree in arts and sciences may not be counted toward the minor.

#### MINOR IN AMERICAN STUDIES.

M. THOMAS INGE, MELVIN I. UROFSKY, Coordinators

The minor in American Studies, offered jointly by the Departments of English and History, shall consist of at least 18 upper-level credits to be distributed as follows: 1) AMS 394 Perspectives in American Studies and AMS 395 Topics in American Studies (6 credits); 2) humanities electives (3-6 credits); 3) social science electives (3-6 credits); and 4) approved electives or independent study (0-3 credits). All courses selected to fulfill distribution areas should deal with American materials and topics. A list of recommended courses and electives is

maintained by the coordinating departments.

A minimum grade point average of 2.0 must be achieved in the minor, and courses taken to satisfy the general requirements for the B.S. or B.A. degree in arts and sciences may not be counted toward the minor.

### BIOLOGY

RUSSELL V. BROWN

Chairman of the Department

JACKSON E. JEFFREY

Assistant to the Chairman

Jane Bieber / Charles R. Blem

Joseph P. Chinnici / Carolyn M. Conway

Robert W. Fisher / James E. Gates

Peter E. Giebel / Lewis C. Goldstein

Wayne C. Hall / Robert E. Jenkins

Miles F. Johnson / T. Daniel Kimbrough, Jr.

Frederick C. Landa / Gerald C. Llewellyn

Robert W. Maher / Margaret L. May

Sara M. McCowen / Richard R. Mills

Leo D. Montroy / John F. Pagels

John D. Reynolds / Walter L. Richards, Jr.

Michael D. Roper / Michael J. Scanlan

Arthur J. Seidenberg / John M. Sharpley

Lynn S. Siegel

### Objectives

The purpose of the curriculum in biology is to prepare students for graduate study in biology; for admission to schools of medicine, dentistry, and veterinary medicine; for admission to allied health programs; for employment in laboratory or field programs within private industry or governmental agencies; and for teaching in secondary schools.

The Department of Biology offers two undergraduate degree programs:

1. Bachelor of Science in biology.
2. Bachelor of Science in biology education conferred through the School of Education

**Pre-Professional Study for the Health Professions** The Bachelor of Science in Biology program provides a four-year course of study in preparation for medical, dental, or veterinary school. The department also offers a variety of two-year pre-professional programs in the allied-health professions. See pages 114-120 for more information.

**Master of Science in Biology** For information about the graduate program in biology, see the School of Arts and Sciences Graduate Bulletin.



**Non-Major Electives** The department offers a variety of courses which do not fulfill the major or minor requirements and are not specific requirements for pre-health science students. These courses are offered to develop the general science literacy of the non-biology major.

### Degree Requirements

**Bachelor of Science in Biology.** The Bachelor of Science curriculum in biology requires a minimum of 124 credits, including 40 credits in biology. Along with the general requirements of the Academic Campus and the School of Arts and Sciences for the B.S. degree listed on pages 58 and 92, following courses are required and the indicated sequence is recommended:

**Freshman year.** BIO 101-102 General Biology and BIO L101-102 General Biology Laboratory, CHE 101-102 General Chemistry and CHE L101-102 General Chemistry Laboratory, and MAT 200 Calculus or STA 213 Introduction to Statistics. (In preparation for MAT 200 or STA 213, all students must take the Mathematics Placement Test. Depending on the results, the student may be placed in MAT 101 College Algebra prior to enrolling in MAT 200 or STA 213.)

**Sophomore Year.** BIO 218 Cell Biology, BIOCORE 10 credits, and CHE 301-302 Organic Chemistry and CHE L301-L302 Organic Chemistry Laboratory.

**Junior Year.** BIOCORE 4 credits, PHY 207, 208 University Physics, or PHY 201-202 General Physics and BIOAREAS 3 credits.

**Senior Year.** BIOAREAS 12 credits.

**BIOCORE.** The following courses must be taken by majors:

BIO 101, 102, L101, L102 General Biology and Laboratory

BIO 218 Cell Biology

BIO 310 Genetics

BIO 317 Ecology

Organismal Biology. One course from each of the following groups:

#### Animal Group

BIO 301 Vertebrate Morphology

BIO 302 Animal Embryology

BIO 312 Invertebrate Zoology

BIO 313 Vertebrate Natural History

#### Plant Group

BIO 319 Survey of the Plant Kingdom

BIO 320 Botany of the Seed Plant

**BIOAREAS.** The remaining courses in biology must be chosen from one or more of the following areas:

#### 1. Cellular/Molecular

BIO 303 Bacteriology

BIO 311 General Physiology

BIO 404 Comparative Animal Physiology

BIO 405 Bacterial Physiology

BIO 420 Plant Physiology

BIO 424 Endocrinology

BIO 450 Developmental Biology

BIO 455 Immunology and Serology

#### 2. Organismal

<sup>2</sup>BIO 301 Vertebrate Morphology

<sup>2</sup>BIO 302 Animal Embryology

BIO 309 Entomology

<sup>2</sup>BIO 312 Invertebrate Zoology

<sup>2</sup>BIO 313 Vertebrate Natural History

<sup>2</sup>BIO 319 Survey of the Plant Kingdom

<sup>2</sup>BIO 320 Botany of the Seed Plant

BIO 326 Plant Pathology

BIO 403 Biology of Fishes

BIO 406 Mycology

BIO 409 Plant Anatomy

BIO 410 Plant Taxonomy

BIO 411 Summer Flora

BIO 413 Parasitology

BIO 415 Aquatic Macrophytes

BIO 416 Ornithology

BIO 417 Mammalogy

BIO 429 Neuroanatomy

BIO 435 Herpetology

BIO L436 Laboratory in Herpetology

#### 3. Environmental

BIO 307 Limnology

BIO L317 Ecology Laboratory

BIO 401 Industrial Microbiology

BIO 414 Aquatic Ecology

BIO 418 Plant Ecology

#### 4. General

BIO 200 Biological Terminology

BIO 300 Microtechniques

BIO 308 Vertebrate Histology

BIO L310 Genetics Laboratory

BIO 412 Radiation Biology

BIO L412 Radiation Biology Laboratory

BIO 422 Evolution and Speciation

BIO 430 Human Genetics

### Minor in Biology

The minor in biology shall consist of 21 credits, including the following: BIO 101-102, L101, L102 General Biology and

<sup>2</sup> These courses may be used to fulfill the BIOAREA requirement if not previously used to fulfill the BIOCORE requirement.

Laboratory I and II, BIO 218 Cell Biology, BIO 310 Genetics, BIO 317 Ecology, and one of the following courses: BIO 301 Vertebrate Morphology, BIO 302 Animal Embryology, BIO 312 Invertebrate Zoology, BIO 319 Survey of the Plant Kingdom, or BIO 320 Botany of the Seed Plant. A minimum grade point average of 2.0 must be achieved in the minor, and courses that are taken to satisfy the general requirements for the B.S. or B.A. degree in arts and sciences may not be counted toward the minor.

In completing the minor in biology, the student is also required to complete CHE 101-102, L101, L102 General Chemistry and General Chemistry Laboratory I and II, and CHE 301-302, L301, L302 Organic Chemistry and Organic Chemistry Laboratory I and II.

### **Bachelor of Science in Biology Education**

The Bachelor of Science in biology education curriculum requires a minimum of 124 credits, including 32 credits in biology. For the B.S. program in biology education, see page 198 under the listings of the Department of Secondary/Post Secondary Education, School of Education.

## **CHEMISTRY**

LAWRENCE J. WINTERS

Chairman of the Department

B. L. STUMP

Assistant to the Chairman

Robert G. Bass / Frederick M. Hawkrigde

Robert K. Kobos / Gordon A. Melson

Raphael M. Ottenbrite / Donald D. Shillady

Stuart J. Silvers / Joseph A. Topich

### **Objectives**

The purpose of the curriculum in chemistry is to prepare students for graduate study in chemistry; for teaching in secondary schools; for employment in chemical and industrial laboratories and in related fields of business and industry; and for admission to schools of medicine, dentistry, and veterinary medicine.

The Department of Chemistry offers three undergraduate degree programs:

1. Bachelor of Science in Chemistry. Two options are available: the chemical science program and the professional chemist program. The chemical

science program is suitable for pre-professional study for the health sciences and other interdisciplinary areas where an emphasis in chemistry is desirable. The professional chemist program requires a greater concentration in chemistry. It is approved by the American Chemical Society Committee on Professional Training, and upon satisfactory completion of the degree requirements the student is certified by the American Chemical Society.

2. Bachelor of Arts in Chemistry. The program allows the student to follow a curriculum in chemistry, but it provides more opportunity for electives in other liberal arts areas.
3. Bachelor of Science in Chemistry Education, conferred through the School of Education.

In addition, the department offers required and elective courses in chemistry for students in other programs of study.

**Pre-Professional Study for the Health Professions.** The Bachelor of Science and Bachelor of Arts in chemistry programs, with the proper selection of electives, satisfy admission requirements to most schools of medicine or dentistry.

**Master of Science and Doctoral Program in Chemistry.** For information about these programs in chemistry, see the School of Arts and Sciences Graduate Bulletin.

### **Degree Requirements**

**Bachelor of Science in Chemistry.** The Bachelor of Science in chemistry curriculum for **Professional Chemists** requires a minimum of 124 credits, including 42 credits in chemistry. The general requirements of the Academic Campus and the School of Arts and Sciences for the B.S. degree are listed on pages 58 and 92. German is recommended for the foreign language or computer science requirement. The following courses are required and the indicated sequence is recommended:

**Freshman Year.** CHE 101-102 General Chemistry and CHE L101-102 GENERAL CHEMISTRY LABORATORY, I, II; MAT 102 or 107, 200 Algebra and Trigonometry and Calculus with Analytic Geometry.

**Sophomore Year.** CHE 309 Quantitative Analysis; CHE 301-302 Organic Chemistry and CHE L301-302 Organic Chemistry Laboratory I, II; MAT 201 Calculus with Analytic Geometry;

MAT 307 Multivariate Calculus; PHY 207, 208 University Physics I, II.

**Junior Year.** CHE 303-304, Physical Chemistry; CHE L304 Physical Chemistry Laboratory; MAT 301 Differential Equations.

**Senior Year.** CHE 406 Advanced Inorganic Chemistry; CHE 409 Advanced Analytical Chemistry; and CHE 410 Atomic and Molecular Structure. Either CHE 403 Qualitative Organic Chemistry or a minimum of two credits of CHE 497 Independent Study must be selected as an approved elective in the junior or senior year.

**The Chemical Science Option** for the Bachelor of Science in chemistry allows the student to select more courses from other disciplines. This program has less stringent requirements in mathematics, physics, and chemistry, and is particularly suitable for students intending to study medicine or dentistry.

It requires a minimum of 124 credits, including 33 credits in chemistry. The general requirements of the Academic Campus and the School of Arts and Sciences for the B.S. degree are listed on pages 58 and 92. German is recommended for the foreign language or computer science requirement. The following courses are required and the indicated sequence is recommended:

**Freshman Year.** CHE 101-102 General Chemistry and CHE L101-102 General Chemistry Laboratory I, II; MAS 107, 200 Algebra and Trigonometry and Calculus with Analytical Geometry.

**Sophomore Year.** CHE 202 Quantitative Analysis; CHE 301-302 Organic Chemistry and CHE L301-302 Organic Chemistry Laboratory I, II; MAS 201 Calculus with Analytical Geometry; PHY 207, 208 University Physics I, II or PHY 201-202 College Physics.

**Junior Year.** CHE 303 Physical Chemistry or with permission, CHE 305, Introduction to Physical Chemistry and CHE 304 Physical Chemistry; CHE L304 Physical Chemistry Laboratory.

**Senior Year.** Approved chemistry electives (3 credits minimum—may include Biochemistry, BIC 304).

**Bachelor of Arts in Chemistry.** The Bachelor of Arts curriculum in chemistry requires a minimum of 124 credits, including 33 credits in chemistry. Along with the general requirements of the Academic Campus and the School of Arts and Sciences for the B.A. degree listed on pages 58 and 91, the courses required and their recommended sequence are the same as given above for the chemical science B.S. degree program.

### Minor in Chemistry

The minor in chemistry shall consist of at least 18 credits, distributed as follows: 10 credits in CHE 101-102, L101, L102 General Chemistry and Laboratory I and II; and a minimum of 8 credits selected from: CHE 202 Quantitative Analysis or CHE 301, L301 Organic Chemistry and Laboratory I or (CHE 303 Physical Chemistry or CHE 305 Introduction to Physical Chemistry). If CHE 101-102, L101, L102 General Chemistry and Laboratory I and II are used for the arts and sciences laboratory science general requirement, 10 or more additional credits of upper-level (300-400) chemistry must be completed for the required 18 credits. Prerequisites in mathematics and physics should be noted.

**Bachelor of Science in Chemistry Education.** The Bachelor of Science curriculum in chemistry education requires a minimum of 124 credits, including 33-34 credits in chemistry. For the B.S. program in chemistry education, see page 198, under the listings of the Department of Secondary/Post Secondary Education, School of Education.

## COMPARATIVE AND GENERAL LITERATURE

SUSAN A. GOHLMAN  
Coordinator

### Objectives

The purpose of the curriculum in comparative and general literature is to offer students the opportunity to study literature within an international rather than a national context and to introduce them to the comparative study of themes, genres, and

aesthetic movements in literature and art history.

The Bachelor of Arts degree in comparative and general literature is offered jointly by the Departments of English and Foreign Languages. Majors will choose one of the following options:

1. A concentration in comparative literature, in which the literatures of emphasis will be studied in their original languages.
2. A concentration in world literature, which aims at greater breadth than the comparative literature concentration and in which the literature may be read in English.
3. A concentration in literature and art history, in which the relationships between the two arts in a particular time or place may be explored.

### Degree Requirements

**Bachelor of Arts in comparative and general literature.** The Bachelor of Arts curriculum in comparative and general literature requires a minimum of 124 credits, including 30 upper-level credits in courses appropriate to the elected option. Along with the general requirements of the Academic Campus and the School of Arts and Sciences for the B.A. degree listed on pages 58 and 91, students majoring in any of the three options are required to take the following core courses in the methodology and approaches of comparative literature: ENG 350 Approaches to Literature (three credits) and CML 485 Seminar in Comparative Literature (six credits).

Under the **comparative literature option**, students will choose two literatures from the following list for primary and secondary emphasis (nine and six credits respectively) which they will study in the original languages: American, British, Classical, French, German, Hispanic, Russian, and Third World. (Students who choose American or British literature for their primary emphasis may not choose the other for secondary emphasis.) Also required are six credits in comparative courses which include more than one national literature.

Under the **world literature option**, students will choose two literatures from the list in the previous paragraph which may be studied in English translation.

Under the **literature and art history option**, students will take 12 upper-level

credits in art history and nine in literature to develop a coherent chronological period or regional emphasis.

For additional information, consult either the Department of English or the Department of Foreign Languages.

### ECONOMICS

WILLIAM F. HELLMUTH

Chairman of the Department

See page 164 of this Bulletin for listing of Department of Economics faculty.

### Objectives

Economics is the science of making choices. It is the study of how the goods and services we want get produced and how they are distributed among us.

The Department of Economics offers two degree programs:

1. Bachelor of Science in Economics, conferred by the School of Arts and Sciences with a required core of liberal arts courses. (This degree program is described below.)
2. Bachelor of Science in Economics, conferred by the School of Business with a required core of business courses. (For further information on this program, see page 164 in this bulletin.)

The degree in economics conferred through the School of Arts and Sciences is designed for the following purposes:

1. To prepare students for careers as economists, and such other areas as public administration, social service, and the financial sector.
2. To prepare students for graduate work in economics.
3. To prepare students for graduate work in professional schools, such as law, public administration, and medicine.

In addition, the department offers required and elective courses for students in other programs of study throughout the university.

### Degree Requirements

**Bachelor of Science in Economics.** The Bachelor of Science curriculum in economics requires a minimum of 124 credits, including 36 credits in the major (33 credits in economics plus STA 213 Introduction to Statistics.)

Along with the completion of the general requirements of the Academic Campus and the School of Arts and Sciences for the B.S.

degree listed on pages 58 and 92, the student majoring in economics must complete the following courses: ECO 201-202 Principles of Economics; ECO 301 Microeconomic Theory; ECO 307 Money and Banking; ECO 407 Macroeconomic Theory; ECO 499 Senior Economic Seminar; STA 213 Introduction to Statistics; an additional 15 credits of electives in upper level (300-400) economics courses.

In fulfilling the general requirements of the School of Arts and Sciences for the B.S. degree, as listed on page 92, the student must choose two courses in mathematics from one of the following options, depending on the student's objectives and score on the mathematics placement test:

MAT 111-112 Basic Mathematics and Elements of Calculus for the Behavioral, Social, and Management Sciences; or (2) MAT 101-204 College Algebra and Elements of Calculus; or (3) MAT 102-200 Algebra and Trigonometry and Calculus with Analytic Geometry; or (4) MAT 200-201 Calculus with Analytic Geometry.

In selection of approved electives to meet the general requirements of the School of Arts and Sciences, it is recommended that students select courses related to a major in economics—specifically, courses in accounting, history, mathematics and statistics, philosophy, political science, sociology-anthropology, and finance, preferably with several courses in one or two of these subjects.

### Minor in Economics

The minor in economics offered through the School of Arts and Sciences shall consist of at least 18 credits including the following: 1) ECO 201-202 Principles of Economics, 2) one or more courses chosen from ECO 301 Microeconomic Theory, ECO 303 Theory of the Firm, or ECO 407 Macroeconomic Theory, and 3) the remaining courses chosen from upper-level (300-400) economics courses. A minimum grade point average of 2.0 must be achieved in the minor, and courses that are taken to satisfy the general requirements for the B.S. or B.A. degree in arts and sciences may not be counted toward the minor.

## ENGINEERING

A dual physics/engineering degree program is offered in cooperation with Old Dominion University. For further details, see the physics and physical science section of this bulletin, page 108.

## ENGLISH

M. THOMAS INGE

Chairman of the Department

GEORGE C. LONGEST

Assistant to the Chairman

C. W. GRIFFIN

Director of Composition and Rhetoric

J. MAURICE DUKE

Director of Graduate Studies

LAWRENCE F. LABAN

Director of Student Activities

Robert A. Armour / Walton Beacham

Ronald T. Bean / Sudie Y. Beck<sup>4</sup>

Beate H. Bennett / Helen Berkowitz

Boyd M. Berry / Mark W. Booth

E. Allan Brown / E. Frenchie Campbell

Walter R. Coppedge / Gertrude C. Curtler

Daryl Dance / E. Anne Duke

Christine C. Gallant / Susan A. Gohman

Marguerite Harkness<sup>3</sup> / Alpheus F. Holmes

Anne S. Jordan / R. Gordon Kelly

James J. Kinney / Karen J. Larson

Michael D. Linn / Albert M. Lyles

Christopher J. Madigan / A. Bryant Mangum

Robert C. Markham / Robert J. McNutt

Richard W. Mercer<sup>3</sup> / Charlotte C. Morse

James D. Pendleton / Richard K. Priebe

Elizabeth R. Reynolds / Gary Sange

Robert F. Schultz / Joyce Scott

Nicholas Sharp / John Shtogren

Ellington White / Elizabeth Williamson

Ann M. Woodlief

### Objectives

The purpose of the curriculum in English is to help the student acquire an understanding of his literary heritage and its relationship to contemporary life, develop an appreciation and practical knowledge of the modes of literary expression, and prepare himself for advanced work in English language and literature.

The Department of English offers two undergraduate degree programs:

1. Bachelor of Arts in English.
2. Bachelor of Science in English education, conferred through the School of Education.

<sup>3</sup> Educational leave, 1977-78.

<sup>4</sup> Part-time, 1977-78.

In addition the department offers required and elective courses in English composition, language, and literature for students in other programs of study as well as for those majoring in English.

### Master of Arts in English/English Education

For information about the graduate program in English/English Education, see the School of Arts and Sciences Graduate Bulletin.

### Degree Requirements

**Bachelor of Arts in English.** The Bachelor of Arts curriculum in English requires a minimum of 124 credits, including 30 upper-level (300-440) credits beyond the 12 credits of English used to fulfill the general education requirement. Six credits may be taken in foreign literature in English translation offered by the Department of Foreign Languages.

Along with the general requirements of the Academic Campus and the School of Arts and Sciences for the B.A. degree listed on pages 58 and 91, students in the Bachelor of Arts curriculum in English must choose their English major electives so that there will be a minimum of six upper-level credits from each of the four following areas: (1) English literature, (2) American literature, (3) comparative literature and (4) linguistics, criticism, and advanced writing.

#### English Literature

- 203, 204 English Literature
- 319 English Literature 1660-1744
- 320 English Literature, 1744-1798
- 321 Romantic Literature
- 322 Victorian Poetry
- 335 Glories of the English Renaissance
- 401 Shakespeare
- 402 Chaucer
- 403 Milton
- 415 English Novel, 18th Century
- 416 English Novel, 19th Century
- 418 Intellectual Controversies in Victorian Culture
- 423 English Drama, 900-1642
- 424 English Drama, 1660-1800
- 441 Renaissance Literature
- 442 17th Century Literature

#### American Literature

- 205, 206 American Literature
- 313 Southern Literature
- 314 Black American Writers
- 371 American Literature: Colonial and Federal

- 372 American Literature: The American Renaissance
- 373 American Literature: Realism and Naturalism
- 374 American Literature: Early 20th Century
- 375 American Literature: Contemporary
- 414 American Novel
- 471 Minority Voice in American Literature

#### Comparative Literature<sup>5</sup>

- 201, 202 Western World Literature
- 211, 212 Western World Art and Literature
- 311 Commonwealth and Third World Literatures
- 315 The Modern Novel
- 316 Modern Poetry
- 317 Modern Drama
- 318 Contemporary Poetry
- 361 Bible as Literature
- 363 African Literature
- 365 Caribbean Literature
- 367 Eastern Thought in Western Literature
- 386 Introduction to Folklore
- 407 Medieval Epic and Romance
- 421 Comparative Literature I
- 422 Comparative Literature II
- 475 Modernism I
- 476 Modernism II
- FLT 301 Early Chinese Literature
- FLT 302 Revolution and Erotic Life in Chinese Literature
- FLT 311 The Humanist Quest in French Literature
- FLT 312 Revolt and Renewal in Modern French Literature
- FLT 321 The Hero in Early German Literature
- FLT 322 Man in Crisis in German Literature
- FLT 331 The Hero in Greek Epic, Tragedy, and Comedy
- FLT 332 Individual and Cosmos in Greek Literature
- FLT 341 Realism in Russian Literature
- FLT 342 Individual and Society in Russian Literature
- FLT 351 National Character in Spanish Literature
- FLT 352 Crisis and Rebirth in Modern Spanish Literature
- FLT 361 Protest and Revolt in Latin Literature
- FLT 362 Myth and Satire in Latin Literature
- FLT 371 Latin American Literature of the Colonial Period
- FLT 372 The Search for National Identity in Latin American Literature

#### Linguistics, Criticism, and Advanced Writing

- 215 Introduction to Literary Genres
- 302 Legal Writing
- 304 Advanced Composition
- 305, 306 Creative Writing
- 307 Teaching Writing Skills
- 327 Business and Technical Report Writing
- 350 Approaches to Literature
- 426-427 Creative Writing Playwriting
- 429 Form and Theory of Poetry

<sup>5</sup> No more than six credits in literature in English translation taught by the Department of Foreign Languages may be applied toward the English major.



- 430 Form and Theory of Fiction
- 431 Literary Criticism
- 435, 436 Creative Writing: Poetry
- 437, 438 Creative Writing: Fiction
- 446 Nonstandard Urban Dialects
- 448 Introduction to Linguistics: Phonology
- 449 Introduction to Linguistics:  
Morphology and Syntax
- 450 Transformational Grammar
- 451 History of the English Language

### Minor in English

The minor in English shall consist of 18 credits in upper-level (300-400) English courses, including at least 3 credits from each of the following areas: 1) English literature, 2) American literature, 3) linguistics, criticism, and advanced writing, and 4) comparative literature. Three credits may be taken in foreign literature in English translation (FLT) and three in independent study. ENG 300 Individualized Writing Workshop will not count towards the minor. A minimum grade point average of 2.0 must be achieved in the minor, and courses that are taken to satisfy the general requirements for the B.S. or B.A. degree in arts and sciences may not be counted toward the minor.

### Bachelor of Science in English Education

The Bachelor of Science curriculum in English education requires a minimum of 124 credits including at least 36 credits in English. For the B.S. program in English education, see page 198 under the listings of the Department of Secondary/Post Secondary Education, School of Education.

## FOREIGN LANGUAGES

WILLIAM J. BECK

Chairman of the Department

Erin J. Beacham / John C. Birmingham, Jr.  
Francis J. Brooke / Paul F. Dvorak  
Harry L. Farmer / Alfred W. Gross  
Gerhard S. Kallienke / Ernest J. Lunsford  
Ronald S. Marta / Cecile E. Noble  
Robert L. Sims / Kenneth A. Stackhouse

### Objectives

The purpose of the curriculum in French is to prepare the student for graduate study in the language, for the teaching of French on the secondary level, and for service in fields *requiring the knowledge of French*.

In addition to courses in French, substantial offerings in German and Spanish are available in both day and evening sessions. Courses in Arabic, Chinese, Classical Greek, Hebrew, Italian, Latin, and Russian are usually offered in the Evening College only. (See the Evening College Catalog.)

The Department of Foreign Languages offers two degree programs:

1. Bachelor of Arts in French.
2. Bachelor of Science in French education, conferred through the School of Education.

Freshmen admitted to the School of Arts and Sciences who wish to continue study of their high school language must take a placement test. Students transferring from other colleges and universities with advanced placement or advanced standing in foreign language will receive credits as granted by the institution from which they are transferring. Transfer students who have not begun language study at the collegiate level and who wish to continue study of their high school language must take the placement test. Consult pages 91 or 92 for the specific language requirement of the Bachelor of Arts or Bachelor of Science degree.

The Department of Foreign Languages also offers the following literatures in English translation: Chinese, French, German, Greek, Russian, Latin, Spanish, and Spanish American. While these courses do not satisfy the normal language requirements for the B.A. or B.S. degrees, they are offered to both language majors and others interested in such classes. A complete listing will be found under the section entitled Foreign Literatures in English Translation.

Aware of heightened student interest in foreign cultures, the Department of Foreign Languages offers courses in English dealing with French, German, and Spanish culture, for which a knowledge of foreign language is not necessary. As interest in such classes continues to grow, it is hoped that other cultures will be added to those listed above.

### Study Abroad Opportunities

A number of departments in the School of Arts and Sciences offer opportunities for study abroad during the semester break and

the summer session. In addition to the advantages of living in a foreign culture, VCU students have earned up to six credits in foreign languages, history, art history, and other subject areas. Watch the bulletin boards and THE COMMONWEALTH TIMES for announcements for these programs.

### Degree Requirements

**Bachelor of Arts in French.** The Bachelor of Arts curriculum in French requires a minimum of 124 credits, including 30 credits in French upper-level (300-400) courses.

Along with the general requirements of the Academic Campus and the School of Arts and Sciences for the B.A. degree listed on pages 52 and 83, the student majoring in French is required to take the following courses: FRE 301, 302 Survey of Literature; FRE 303, 304 Advanced Grammar and Translation; FRE 305 French Civilization; and 15 credits from any 400 level French courses. In fulfilling the general requirements of the School of Arts and Sciences for the Bachelor of Arts in French, the student must take HIS 101-102 Introduction to European History and two years of a second foreign language.

### Minor in French, German, or Spanish

A minor in French, German, or Spanish shall consist of at least 18 credits, distributed as follows: 201-202 (intermediate) of the language in question, plus at least 12 credits at the 300 and/or 400 level of the same language. However, students who place out of 201 and/or 202 (intermediate) via the placement test may not use either of these courses toward the minor, since credit is not granted by placement for the first two years (elementary and intermediate) of a language. Up to 6 credits in additional upper-level courses must be taken to complete the minor in such a case. Further, 201-202 (intermediate) and any 300 or 400 level courses cannot be applied toward both the general requirements for the B.S. or B.A. degree in arts and sciences and the minor. A minimum grade point average of 2.0 must be achieved in the minor.

**Bachelor of Science in French Education.** The Bachelor of Science curriculum in French education requires a minimum of 124 credits, including at least 30 credits in French. For the B.S. program in French education, see page 198 under the listings of the Department of Secondary/Post Secondary Education, School of Education.

### HISTORY AND GEOGRAPHY

MELVIN I. UROFSKY

Chairman of the Department

Joseph W. Bendersky / Thelma S. Biddle  
Alden G. Bigelow / William E. Blake, Jr.  
Alan V. Briceland / Robert D. Crome  
Marijean H. Eichel / Arthur J. Engel  
Harold E. Greer, Jr. / Sandra M. Hawley  
Daniel P. Jordan, Jr. / Susan Estabrook Kennedy  
Edward J. Kopf / Daniel C. Littlefield  
Michael W. Messmer<sup>3</sup> / James T. Moore  
George E. Munro / Francis C. Nelson  
Philip J. Schwarz / Robert M. Talbert

### Objectives

The purpose of the history curriculum is to expose the student to a multi-dimensional analysis of the human past. Knowledge gained through such analysis not only has the intrinsic appeal of any disciplined intellectual inquiry, but also constitutes an indispensable basis for active citizenship and for critical thinking about the society in which one lives. Historical training at the undergraduate level therefore provides access to personal and social awareness within the rich tradition of the liberal arts; it is also an ideal means of preparing the student for a wide range of careers or for further professional study.

Students majoring in history have a choice of two degree programs:

1. Bachelor of Arts in history.
2. Bachelor of Science in history and social science education conferred through the School of Education.

Other students may avail themselves of a wide range of courses with thematic, topical, national, or chronological emphasis to fulfill requirements or electives in their own educational programs.

<sup>3</sup> Educational leave



### Degree Requirements

**Bachelor of Arts in History.** The Bachelor of Arts curriculum in history requires a minimum of 124 credits, including 30 credits in history beyond the 12 credits to fulfill the general education requirement. Students in the Bachelor of Arts program must take a minimum of 24 of the 30 credits for the major at the 300 and 400 levels, with at least 6 of those credits in 400 level courses. All students in the Bachelor of Arts program must choose at least 6 credits in each of three geographical areas: Europe, the United States, and the Third World. With their advisors' approval, students may take up to 6 credits toward the history major from an approved list of courses in other departments.

Along with completion of the general requirements of the Academic Campus and the School of Arts and Sciences for the B.A. degree listed on pages 58 and 91, approved electives may be chosen from among any courses offered in the Schools of Arts and Sciences, the Arts, Business, Community Services, and Education.

**Honors in History.** History majors in the B.A. program may earn a degree with honors in history. To enter this program they must have a 3.0 overall average in their work or a 3.0 average for their junior year, with at least a 3.2 average in history. Application to enter the honors in history program must be made in the junior year. Students who complete this program successfully will graduate in the honors program in history and the notation will be placed on their transcripts.

Students should consult with their advisors to create a program adapted to their particular needs and interests.

### Minor in History

The minor in history shall consist of at least 18 credits in upper-level (300-400) history courses. Of these 18 credits, at least 3 credits must be at the 400 level. A minimum grade point average of 2.0 must be achieved in the minor, and courses that are taken to satisfy the general requirements for the B.S. or B.A. degree in arts and sciences may not be counted toward the minor.

### Minor in Geography

The geography minor shall consist of 18 credits including GEO 203, 204 Physical Geography, GEO L203, L204 Physical Geography Laboratory; GEO 207 or 208 World Regions; and GEO 311 or 312 History of Human Settlement. Six credits must be upper-level (300-400) courses. URS 352 Cartography and URS 415 Air Photo and Remote Sensor Interpretation may apply to the minor and are strongly recommended to students wishing to concentrate in physical geography. A minimum grade point average of 2.0 must be achieved in the minor, and courses that are taken to satisfy the general requirements for the B.S. or B.A. degree in arts and sciences may not be counted toward the minor.

### Bachelor of Science in History Education.

The Bachelor of Science curriculum in history education requires a minimum of 124 credits including at least 24 credits in history. For the B.S. program in history education, see page 198 under listings of the Department of Secondary/Post Secondary Education, School of Education.

### MINOR IN LINGUISTICS

E. ANNE DUKE, Coordinator

The minor in linguistics shall consist of 18 credits, including the following: 1) LIN 450 Transformational Grammar, 2) either LIN 448 Introduction to Linguistics: Phonology or LIN 449 Introduction to Linguistics: Morphology, and 3) any additional 12 credits in courses titled or crosslisted linguistics. A minimum grade pointed average of 2.0 must be achieved in the minor, and courses that are taken to satisfy the general requirements for the B.S. or B.A. degree in arts and sciences may not be counted toward the minor.

### MASS COMMUNICATIONS

GEROGE T. CRUTCHFIELD

Chairman of the Department

Edmund C. Arnold / Taik Sup Auh

Robert S. Boyd / Charles A. Fair

Robert L. Hughes / Jack R. Hunter<sup>4</sup>

Valts E. Jegermanis / Raymond Laakaniemi

James R. Looney / Kenneth R. Sparks<sup>4</sup>

William H. Turpin / David Manning White

<sup>4</sup> Part-time

## Objectives

The objective of the Department of Mass Communications is to prepare students for careers in the mass media and related fields and to encourage high standards of ethical and journalistic performance. The prescribed courses in the arts and sciences and the professional courses in the Department of Mass Communications provide a broad educational base and instruct students in the techniques of mass communications.

The Department of Mass Communications offers a Bachelor of Science degree in mass communications with specialization in the following sequences:

1. **News Editorial Sequence** (a) This concentration is intended primarily for those who wish to prepare themselves for newspaper writing or editing positions, and (b) for students who wish to seek careers in magazine writing, editing, and management.
2. **Advertising/Public Relations Sequence** (a) The advertising concentration is designed to prepare students for careers in advertising departments of manufacturers and retailers, advertising agencies, advertising media, and advertising service organizations, and (b) the public relations concentration is designed to prepare students for employment in a public relations capacity in industry, government, or institutions.
3. **Broadcast News Sequence.** This concentration is designed for students who wish to prepare themselves for radio and television journalism.

The department maintains a placement service to aid students in obtaining positions after graduation.

## Degree Requirements

The Bachelor of Science curriculum in mass communications requires a minimum of 124 credits, including 30 credits in mass communications courses. Of the 30 credits, the public relations concentration requires 12 credits in upper level (300-400) courses; the advertising, newspaper, magazine, and broadcast news concentrations require 15 credits in upper level (300-400) courses.

Along with the general requirements of the Academic Campus and the School of Arts and Sciences for the B.S. degree listed on pages 58 and 92, the student majoring in mass communications is required to take the following core courses: MAC 101 Mass Communications; MAC 203 Writing for the Mass Media; MAC 408 Communications

Law. (Skill in typing is required before a student enrolls in MAC 203 Writing for the Mass Media. A proficiency examination is administered by the department.)

The advertising concentration requires MAC 181 Principles of Advertising; MAC 382 Media Strategy; MAC 393 Television and Radio Advertising; MAC 394 Advertising Copy and Layout; MAC 481 Advertising Campaigns I and BUS 308 Introduction to Marketing.

The public relations concentration requires MAC 181 Principles of Advertising; MAC 210 Mass Media Graphics; MAC 303 Advanced Reporting; MAC 422 Public Relations; MAC 425 Public Opinion.

The newspaper concentration requires MAC 210 Mass Media Graphics; MAC 303 Advanced Reporting; MAC 305 Editing and Makeup; MAC 403 Public Affairs Reporting; MAC 407 Newspaper Management.

The magazine concentration requires MAC 210 Mass Media Graphics; MAC 303 Advanced Reporting; MAC 305 Editing and Makeup; MAC 341 Feature and Article Writing; MAC 343 Magazine Editing and Materials Preparation.

The broadcast news concentration requires MAC 261 Principles of Broadcasting; MAC 265 Radio-Television Production; MAC 361 Newsmagazine; MAC 363-364 Advanced Broadcast Reporting; SPE 121 Effective Speech; and MAC 403 Public Affairs Reporting or MAC 461 The Documentary.

Students must earn credits in departmental electives to total 30 credits in the major.

The laboratory science requirement may be fulfilled from the following sequences: BIO 101-102 General Biology and BIO L101, L102 General Biology Laboratory I and II; BIO 101, L101 General Biology and Laboratory I and one four-credit biology elective; CHE 101-102 General Chemistry and CHE L101-L102 General Chemistry Laboratory I and II; CHE 103-104 Introduction to Modern Chemistry and CHE L103-L104 Introduction to Modern Chemistry Laboratory I and II; PHS 107-108 Physical Science; PHY 201-202 General Physics; or PHY 207, 208 University Physics I and II.

In fulfilling the general requirements of the School of Arts and Sciences for the Bachelor of Science degree in mass com-

munications, the student must take: HIS 103, 104 American History; any two additional history courses; POS 101 American Government; POS 322 State and Local Government; ECO 201-202 Principles of Economics; PTY 301 Basic Photo-Journalism; MAT 101 College Algebra; STA 213 Introduction to Statistics. If a student scores high enough on the Mathematics Placement Test, he may satisfy the requirement with STA 213 only.

## MATHEMATICAL SCIENCES

WILLIAM E. HAVER

Chairman of the Department

Richard E. Allan / David F. Bauer  
John F. Berglund / James K. Deveney  
Reuben W. Farley / James W. Freeman  
William A. Glynn / Neil W. Henry  
Robert H. Johnston / C. Michael Lohr  
Paul D. Minton / J. Richard Morris  
James A. Pennline / John R. Rabung  
Pratip N. Raychowdhury / Jerrold S. Rosenbaum  
Raymond C. Sansing / David A. Schedler  
Larry Scott / John F. Schmeelk  
John Van DeWalle / Raymond V. VanWolkenten  
Don M. Warner / James A. Wood

### Objectives

The purpose of the curriculum in mathematical sciences is to promote understanding of the mathematical sciences and their structures, uses, and relationships to other disciplines. To this end, it emphasizes excellence in teaching and the professional growth of its students and faculty through study and research.

The curriculum contains a required core of lower-level courses which provides a foundation for more advanced work while furnishing an introduction to a variety of areas in the mathematical sciences, applied mathematics, statistics, and computer science. The remainder of the curriculum is very flexible, providing for broadly based study or specialization in several areas, and permitting students to plan, in consultation with their advisors, a program which will satisfy their particular educational goals.

The Department of Mathematical Sciences offers two undergraduate degree programs:

1. Bachelor of Science in mathematical sciences.
2. Bachelor of Science in mathematics education, conferred through the School of Education.

Further, for students in other programs, the department offers minors and required and elective courses in mathematics, statistics, and computer science.

**Master of Science in Mathematical Sciences.** For information about the graduate program in mathematical sciences, see the School of Arts and Sciences Graduate Bulletin.

**Master of Education in Mathematics Education.** For information about the graduate program in mathematics education, see the School of Education Graduate Bulletin.

### Degree Requirements

**Bachelor of Science in Mathematical Sciences.** The Bachelor of Science curriculum in mathematical sciences requires a minimum of 124 credits, including 39 credits in computer science, mathematics, and statistics above the 100 level, 24 of which must be in upper-level (300-400 level) courses with at least two of the courses forming a 400-level sequence.

On the basis of the results of the mathematics placement test, a student may be required to take MAT 101-102 College Algebra and Trigonometry or MAT 107 Algebra and Trigonometry. No more than three credits in 100-level mathematics courses will be applicable to the general requirements for the B.S. degree. Credit for 100-level mathematics courses may not be applied toward the mathematics credits required for the mathematics major.

Along with the general requirements of the Academic Campus and the School of Arts and Sciences for the B.S. degree listed on pages 58 and 92, the following courses are required and the indicated sequence is recommended:

**Freshman Year.** MAT 200-201 Calculus with Analytic Geometry. (MAT 101-102 or MAT 107 may have to be taken prior to MAT 200, depending upon the results of the mathematics placement test); CSC 201 Computer Science I; MAT 211 Mathematical Structures.

**Sophomore Year.** MAS 307 Multivariate Calculus; STA 212 Concepts of Statistics; BIO 101-102 General Biology and Biology L101, L102 General Biology

Laboratory I, II, or BIO 101, L101 and one four-credit biology elective, or CHE 101-102 General Chemistry, and CHE L101-L102 General Chemistry Laboratory I, II.

**Junior and Senior Years.** PHY 207, 208 University Physics I, II; and one of the following tracks, or a track designed by the student in consultation with his advisor and approved by the Departmental Committee on Student Credentials and Affairs:

**Mathematics.** MAT 310 Linear Algebra; MAT 410 Algebraic Structures; MAT 407-408 Analysis I, II; MAT 409 General Topology I; and six additional upper level credits in mathematical sciences.

**Applied Mathematics.** MAT 301 Differential Equations; MAT 310 Linear Algebra; MAT 411 Applied Linear Algebra; MAT 417-418 Methods of Applied Mathematics; and six additional upper level credits in mathematical sciences. Students in this track will normally elect several courses in another field.

**Statistics.** MAT 309 Introduction to Probability Theory; STA 413-414 Mathematical Statistics; STA 443-444 Statistical Methods; and six additional upper-level credits in mathematical sciences.

**Computer Science.** CSC 202 Computer Science II; CSC 301 Introduction to Discrete Structures; CSC 311 Computer Science III; CSC 312 Concepts of Programming and Systems; two 400 level computer science courses; and six additional upper level credits in mathematical sciences.

The student should consult with his advisor to adapt the above to his particular goals and needs.

### Minor Requirements—General

A minimum grade point average of 2.0 must be achieved in the minor, and courses that are taken to satisfy the general requirements for the B.S. or B.A. degree in arts and sciences may not be counted toward the minor.

**Minor in Mathematical Sciences.** A minor in mathematical sciences shall consist of at

least 18 credits offered by the Mathematical Sciences Department including a minimum of one semester of calculus (MAT 112 Elements of Calculus for Behavioral, Social, and Management Sciences, MAT 200 Calculus with Analytic Geometry, or MAT 204 Elements of Calculus) and 9 upper-level credits. Neither STA 213 Introduction to Statistics nor any 100 level courses will be credited against the required 18 credits. MAT 112 Elements of Calculus for Behavioral, Social, and Management Sciences will fulfill the calculus requirement, but will not be counted as 3 of the required 18 credits.

**Minor in Computer Science.** The requirements for a minor in computer science are the same as those for the minor in mathematical sciences with the restrictions that the student take CSC 201 Computer Science I and MAT 211 Mathematical Structures and that the 9 credits of required upper-level (300-400) course work be earned in computer science courses.

**Minor in Statistics.** The requirements for a minor in statistics are the same as those for the minor in mathematical sciences with the restriction that the 9 credits of required upper-level (300-400) course work be earned in statistics courses. It is strongly recommended, but not required, that students seeking a minor in statistics take MAT 211 Mathematical Structures and STA 212 Concepts of Statistics rather than STA 213 Introduction to Statistics.

**Bachelor of Science in Mathematics Education.** The Bachelor of Science in mathematics education curriculum requires a minimum of 124 credits, including 39 credits in mathematics. For the B.S. program in mathematics education, see page 198 under the listings of the Department of Secondary/Post Secondary Education, School of Education.

### PHILOSOPHY AND RELIGIOUS STUDIES

THOMAS O. HALL, JR.

Chairman of the Department

Earle J. Coleman / A. Richard Konrad

Keith R. Crim / Clifford W. Edwards

James E. Lindsey, Jr. / Mark C. Overvold

Robert B. Redmon, Jr. / Robert M. Talbert  
J. Carol Williams

### Objectives

The purpose of the curriculum in philosophy and religious studies is to give the student an understanding of the contributions of religion and philosophy to man's life and thought. Special effort is made to relate these fields of study not only to man's general cultural environment but also to one's own values.

The student who has chosen a church-related vocation is provided the opportunity to begin his academic preparation with an objective and descriptive study of religion. Furthermore, courses in religious studies in a state university enable one to study religion along with other disciplines, such as the liberal and fine arts and sciences as a major aspect of man's culture.

The Department of Philosophy and Religious Studies offers a Bachelor of Arts degree in philosophy.

In addition, the department offers elective courses for other programs of study as well as courses for the student majoring in philosophy.

### Degree Requirements

**Bachelor of Arts in Philosophy.** The Bachelor of Arts curriculum in philosophy requires a minimum of 124 credits, including 30 credits in philosophy courses.

The student must also fulfill the general requirements of the Academic Campus and the School of Arts and Sciences for the B.A. degree listed on pages 58 and 91.

### Minor Requirements—General

A minimum grade-point average of 2.0 must be achieved in the minor, and courses that are taken to satisfy the general requirements for the B.S. or B.A. degree in arts and sciences may not be counted toward the minor.

**Minor in Philosophy.** The philosophy minor shall consist of 18 credits, including at least 9 credits in upper-level (300-400) courses.

**Minor in Religious Studies.** The minor in religious studies shall consist of 18 credits, including the following: 6 credits selected from: RST 311, 312 Religions of the World, RST 334 Religion in Contemporary America, RST 406 Islam, RST 408 Indian Tradition,

RST 410 The Chinese Tradition in Philosophy, RST 412 Buddhism in East Asia, and 3 credits selected from: RST 301 Introduction to the Old Testament, RST 302 Introduction to the New Testament, RST 303 Intertestamental Literature and Thought, RST 304 Historical Development of Judaic Thought, RST 305 Hebrew Prophets, RST 313 Life and Literature of Paul.

### PHYSICS AND PHYSICAL SCIENCE

BILLY W. SLOOPE

Chairman of the Department

Paul H. Knappenberger<sup>4</sup> / Terry W. McDaniel

Ronald B. Mosley / Bruce A. Seiber

Eugene J. Shiles / G. Bruce Taggart

### Objectives

The curriculum in physics and physical science is designed for the following purposes:

1. To prepare students for careers in physics or allied technical areas;
2. To prepare students for graduate study in physics or other science-oriented and interdisciplinary areas for which physics is a necessary or desirable background;
3. To prepare students for the teaching of physics in secondary schools;
4. To prepare students for careers in areas such as business, dentistry, environmental science, law, medicine, or science writing for which a basic, but not specialized, background in physics may be desired;
5. To prepare students for a career in the engineering sciences through a pre-engineering program. See catalogue section, Preparation for Professional Studies, for details.

The Department of Physics and Physical Science offers three undergraduate degree programs:

1. Bachelor of Science in physics.
2. Bachelor of Science in physics, education, conferred through the School of Education.
3. Dual physics/engineering program.

In addition, the department offers required and elective courses for students in other programs of study as well as for students majoring in physics.

### Degree Requirements

**Bachelor of Science in Physics.** The

<sup>4</sup> Part-time

Bachelor of Science curriculum in physics requires a minimum of 124 credits, including 32 credits in physics with a minimum of 22 credits in upper level courses and MAT 200, 201, 307, and 301 or 317. Along with the general requirements of the Academic Campus and the School of Arts and Sciences for the B.S. degree listed on pages 58 and 92, the following courses are required and the indicated sequence is recommended:

**Freshman Year.** MAT 200 Calculus with Analytic Geometry (MAT 101-102 or MAT 107 Algebra and Trigonometry may have to be taken prior to MAT 200 depending upon the results of the mathematics placement test); BIO 101-102 and BIO L101, L102 General Biology and Laboratory I, II or BIO 101, L101 and one four-credit biology elective; or CHE 101-102 General Chemistry and CHE L101-L102 General Chemistry Laboratory I, II.

**Sophomore Year.** PHY 207, 208 University Physics I, II; MAT 201 Calculus with Analytical Geometry; MAT 307 Multivariate Calculus.

**Junior Year.** MAT 317 Advanced Mathematics for the Natural Sciences or MAT 301 Differential Equations; PHY 320 Introduction to Modern Physics, PHY L320 Modern Physics Laboratory I, PHY 321 Introduction to Modern Physics II, PHY L321 Modern Physics Laboratory II, PHY 337 Classical Mechanics, and PHY 362 Electromagnetism.

**Senior Year.** Physics electives.

Students who plan to do graduate work may need to take advanced work in languages.

**Dual Physics/Engineering Degree Program.** A dual physics-engineering degree program has been established in cooperation with Old Dominion University, Norfolk, Virginia. In this program, the student enters VCU as a physics major and, upon completion of a specified three-year course sequence with a "C" average, transfers into the mechanical, electrical, or civil engineering program at ODU. Upon completion of the degree requirements at ODU, normally two years, a Bachelor of Science

degree in physics from VCU and a Bachelor of Science degree in engineering from ODU are awarded. Contacts are being made with other universities to arrange similar programs in these and other engineering fields.

**Bachelor of Science in Physics Education.** The Bachelor of Science curriculum in physics education requires a minimum of 124 credits, including 24 credits in physics. For the B.S. program in physics education, see page 198, under the listings of the Department of Secondary/Post Secondary Education, School of Education.

## POLITICAL SCIENCE

HUSAIN MUSTAFA

Chairman of the Department

Robert J. Austin / Frank P. Belloni

Dennis W. Johnson / Henri J. Warmenhoven

Nelson Wikstrom / Yong S. Yim

### Objectives

The political science curriculum has two central objectives. First, it offers the student who prefers a broad liberal arts education a comprehensive understanding of the nature of politics and the functioning of the political process. Second, it provides a sound foundation for the student who wishes to pursue graduate study in political science or careers which require a knowledge of governance and the political process.

The Department of Political Science offers a Bachelor of Arts degree in political science.

In addition, the department offers elective courses in political science for students in other programs of study as well as for those majoring in political science.

### Degree Requirements

**Bachelor of Arts in Political Science.** The Bachelor of Arts curriculum in political science requires a minimum of 124 credits, including 33 credits in political science.

Along with completion of the general requirements of the Academic Campus and the School of Arts and Sciences for the B.A. degree listed on pages 58 and 91, the student majoring in political science must complete the following courses: POS 101, 102 American Government and POS 201 Introduction to Political Science.



In fulfilling the requirement of 33 credits in political science, a major may, with the consent of his advisor, substitute three credits in a related course from one of the following university departments or programs: Afro-American studies, sociology and anthropology, history, mass communications, philosophy and religious studies, psychology, economics, urban studies, administration of justice and public safety, and social work. In addition, HUM 321 Politics in the Arts is counted as a political science course in fulfilling the requirement for 33 credits in political science.

### Minor in Political Science

The minor in political science shall consist of 18 credits, including POS 101, 102 American Government, POS 201 Introduction to Political Science, and at least 9 credits in upper-level (300-400) courses selected in consultation with a political science advisor, excluding POS 497 Independent Study and POS 498 Internship. A minimum grade point average of 2.0 must be achieved in the minor, and courses that are taken to satisfy the general requirements for the B.S. or B.A. degree in arts and sciences may not be counted toward the minor.

## PSYCHOLOGY

WILLIAM S. RAY

Chairman of the Department

Stephen M. Auerbach / Kent G. Bailey  
Joseph J. Crowley / Marilyn T. Erickson  
Steve G. Ferguson / William D. Groman  
Robert J. Hamm / Cathy L. Harris  
John J. Hartnett / Glenn R. Hawkes  
James F. Hooke / Phyllis A. Hornbuckle  
William M. Kallman / Donald J. Kiesler  
Thomas H. Leahey / Melvin V. Lubman  
John M. Mahoney / James P. McCullough, Jr.  
Thomas V. McGovern / Iris A. Parham  
Joseph H. Porter / Nancy J. Spencer  
Edwin R. Thomas / Robert M. Tipton  
Ralph C. Wiggins, Jr.

### Objectives

The purpose of the curriculum in psychology is to give the student a scientific attitude toward and a better understanding of human behavior and to prepare students for one of several occupational goals for which a basic knowledge of psychological principles appears appropriate.

The Department of Psychology offers a Bachelor of Science degree in psychology. In addition, the department offers required and elective courses for those not majoring in psychology.

Each advisor in the Department of Psychology is now prepared to provide his undergraduate advisees with information regarding the choice of elective courses that will increase their opportunities as paraprofessional behavior technicians in the mental health services, as workers in the fields of personnel, corrections, and education, or as applicants to certain post-baccalaureate professional programs.

### Secondary School Teaching Certificate.

Students interested in teaching psychology in secondary schools can become certified under the School of Education Approved Program procedures. Consult the Department of Secondary/Post Secondary Education section in the School of Education part of this bulletin and a faculty advisor in the social science education program for more information.

**Master of Science and Doctor of Philosophy Programs in Psychology.** For information about graduate work in psychology, see the School of Arts and Sciences Graduate Bulletin.

### Degree Requirements

**Bachelor of Science in Psychology.** The Bachelor of Science curriculum in psychology requires a minimum of 124 credits, including 30 credits in psychology.

Along with the general requirements of the Academic Campus and the School of Arts and Sciences for the B.S. degree on pages 58 and 92, the student majoring in psychology is required to take the following courses: PSY 101 General Psychology (prerequisite for upper-level work in psychology); PSY 214 Applications of Statistics; either PSY 301 Child Psychology or PSY 304 Developmental Psychology; PSY 317 Experimental Methods; PSY 411 Survey of Psychological Tests; PSY 451 History and Systems of Psychology.

In fulfilling the general requirements of the School of Arts and Sciences for the Bachelor of Science degree in psychology, the student must take BIO 101-102 and BIO

L101, L102 General Biology and Laboratory I, II or BIO 101, L101, and one four-credit biology elective; SOC 101 General Sociology; and ANT 103 Cultural Anthropology. Two courses in mathematics must be taken: MAT 101 College Algebra and STA 213 Introduction to Statistics. If a student scores high enough on the mathematics placement test, he may satisfy the requirement with STA 213 only.

Students who plan to do graduate work may need to take advanced work in languages.

### Minor in Psychology

The minor in psychology shall consist of 18 credits, including PSY 101 General Psychology, and 15 credits from psychology courses. Prerequisites for courses remain in effect as stated in the bulletin. PSY 207 Improvement of Reading Efficiency cannot be used as credit for the minor. A minimum grade point average of 2.0 must be achieved in the minor, and courses that are taken to satisfy the general requirements for the B.S. or B.A. degree in arts and sciences may not be counted toward the minor.

### INTERDISCIPLINARY DEGREE PROGRAM IN SCIENCE

BILLY W. SLOOPE  
Coordinator

The faculty advising in the program is done by members of the biology, chemistry, mathematics, and physics departments.

### Objectives

The purpose of the Bachelor of Science curriculum in science is to provide the student with a broad and interdisciplinary, but fundamental, grounding in the sciences. The program is also designed particularly to fulfill the needs of students preparing for study in medical or dental schools.

Students completing the curriculum prescribed below will earn the degree of Bachelor of Science in science.

### Degree Requirements

**Bachelor of Science in Science.** The Bachelor of Science curriculum in science requires a minimum of 124 credits. Along

with the general requirements of the Academic Campus and the School of Arts and Sciences for the B.S. degree listed on pages 58 and 92, the curriculum requires 30 credits in advanced science courses; MAT 200 Calculus with Analytic Geometry; MAT 201 Calculus with Analytic Geometry or STA 212 Concepts of Statistics or STA 213 Introduction to Statistics; and the lower level science courses listed below. The 30 credits in advanced science must include at least two courses selected from each of the three areas listed below. The remaining credits may be chosen from any upper-level (300-400) courses which apply toward a major in biology, chemistry, mathematics, or physics.

**Freshman Year.** BIO 101-102 and BIO L101, L102 General Biology and Laboratory I, II; CHE 101-102 and CHE L101-L102 General Chemistry and Laboratory I, II; MAT 200 Calculus with Analytic Geometry; (in preparation for MAT 200, all students must take the Mathematics Placement Test. Depending on the results, the student may be placed in MAT 101, 102, or 107 Algebra and Trigonometry prior to enrolling in MAT 200.)

**Sophomore, Junior, and Senior Years.** MAT 200 Calculus with Analytic Geometry (if it has not already been completed in freshman year); MAT 201 Calculus with Analytic Geometry or STA 212 Concepts of Statistics or STA 213 Introduction to Statistics; PHY 201-202 General Physics or PHY 207, 208 University Physics I, II; 30 credits in advanced science courses.

### Advanced Science Courses

#### Area I

#### Physics

- 320 and L320 Introduction to Modern Physics and Laboratory I
- 322 Optics
- 329 Introduction to Biological Physics
- 331 Electric Circuits and Electronics
- 337 Classical Mechanics
- 340 Introduction to Statistical Physics and Thermodynamics
- 362 Electromagnetism



**Physical Science**

- 307 Introduction to Material Science
- 308 Physical Metallurgy

**Area II****Chemistry**

- 309 Quantitative Analysis
- 301 and L301 Organic Chemistry and Laboratory I
- 302 and L302 Organic Chemistry and Laboratory II
- 303 Physical Chemistry
- 304 Physical Chemistry
- 305 Introduction to Physical Chemistry

**Area III****Biology**

- 218 Cell Biology must be taken and one of the following:
- 301 Comparative Vertebrate Zoology
- 302 Animal Embryology
- 310 and L310 Genetics and Laboratory
- 311 General Physiology
- 317 and L317 Ecology and Laboratory
- 319 Survey of the Plant Kingdom
- 320 Botany of the Seed Plant

**Bachelor of Science in Science Education.**

The Bachelor of Science curriculum in science education requires a minimum of 124 credits, including 10 credits in chemistry, 8 credits in physics, 8 credits in biology, and 6-8 credits in mathematics. For the B.S. program in science education, see page 198 under the listings of the Department of Secondary/Post Secondary Education, School of Education.

**SOCIOLOGY AND ANTHROPOLOGY**

DAVID D. FRANKS,

Chairman of the Department

Rutledge M. Dennis / Lewis Diana  
 Mark Druss / M. Gilbert Dunn  
 Howard Garrison / Neil W. Henry  
 Julie A. Honnold / Charles Jarmon  
 Edward E. Knipe/Joyce S. Kozuch  
 June Kress/Joseph Marolla  
 John H. McGrath/Melvin Mednick  
 Barbara A. Munjas/Lynn D. Nelson  
 Mary Odell / Allan M. Schwartzbaum<sup>a</sup>  
 Diana Scully/Kenneth E. Studer  
 David Trocki/J. Sherwood Williams

**Objectives**

The curriculum in sociology and anthropology reflects the departmental awareness that undergraduate majors have varying backgrounds, interests, and professional or vocational aspirations. The curriculum seeks to insure that each student develops a

sufficiently sound foundation in basic principles, theory, and techniques of analysis in sociology and/or anthropology. The result will be that the widest possible spectrum of opportunity will remain open to students, even in the event that their goals change as they move through the program. Finally the curriculum seeks to allow each student the maximum possible responsibility for the program that is pursued.

Toward the attainment of these goals, a diverse set of offerings in sociology and anthropology, including opportunities for independent study and research for advanced students and potential student involvement in faculty research, has been provided.

The Department of Sociology and Anthropology offers a Bachelor of Science degree in sociology and anthropology.

**Secondary School Teaching Certificate.** Students interested in teaching sociology in secondary schools can become certified under the School of Education approved program procedures. Consult the Department of Secondary/Post Secondary Education section in the School of Education part of this bulletin and a faculty advisor in the social science education program for more information.

**Master of Science in Sociology and Anthropology and Doctor of Philosophy program in Social Work and Social Policy.** For information about graduate work in sociology, see the School of Arts and Sciences Graduate Bulletin.

**Undergraduate Topics Courses.** Topics courses in both sociology and anthropology (SOC 395 and ANT 395) are an integral part of the program and provide an unusual opportunity for the advanced student. Generally, these courses are restricted to a small number of students who share specialized interests in a topic which is either too advanced or too limited in its general appeal to warrant its inclusion as a regular offering. At least one such seminar is offered each semester and the topics course may be repeated to a maximum of 18 credits so long as there is no duplication of the topics.

**Independent Study.** These courses (SOC 497 and ANT 497) are designed for juniors and seniors capable of doing independent

<sup>a</sup> Educational leave

work on selected topics under the direction of specific faculty members. For example, if a course is not being regularly offered in some area of interest to a particular student, and if there are not enough students interested in the area to warrant the offering of a topics course, the student may, with the permission of the instructor, enroll in independent study.

Students may earn a maximum of 24 credits in departmental independent study courses, but they may not enroll for more than 6 credits per semester. Only majors in sociology and anthropology or related fields may enroll in these courses. All students must have completed a minimum of 12 credits in sociology or anthropology with an overall sociology-anthropology grade point average of at least 2.7.

### Degree Requirements

**Bachelor of Science in Sociology and Anthropology.** The Bachelor of Science curriculum in sociology and anthropology requires a minimum of 124 credits, including 30 credits in sociology and anthropology, 21 of which must be in upper-level (300-400) courses.

Along with the general requirements of the Academic Campus and the School of Arts and Sciences for the B.S. degree listed on pages 58 and 92, the student majoring in sociology and anthropology has a choice of fulfilling either a sociology or an anthropology concentration to complete the department's requirements for a major. **Sociology concentration.** A minimum of 30 credits in sociology or anthropology courses including: SOC 101 General Sociology, SOC 214 Applications of Statistics, SOC 320 Research Methods in the Social Sciences, SOC 402 Sociological Theory, ANT 103 Cultural Anthropology. At least 18 credits in this concentration must be in sociology courses.

**Anthropology concentration.** A minimum of 30 credits in sociology or anthropology courses including: ANT 103 Cultural Anthropology, ANT 201 The Evolution of Man and Culture, ANT 454 Anthropological Theory, ANT Introductory Archaeology or ANT 447 Language in its Cultural Context, SOC 101 General Sociology. At least 18

credits in this concentration must be in anthropology courses.

In fulfilling the general requirements of the School of Arts and Sciences for the B.S. degree listed on page 92, the student must choose two courses in mathematics from one of the following options: (1) MAT 101 College Algebra and STA 213 Introduction to Statistics; (2) MAT 111 Basic Mathematics for Behavioral, Social, and Management Sciences and STA 213 Introduction to Statistics; or (3) if a student scores high enough on the mathematics placement test he may satisfy the requirement with STA 213 only.

The laboratory science requirement may be fulfilled from the following courses: BIO 101-102 General Biology and BIO L101, L102 General Biology Laboratory I, II; BIO 101, L101 General Biology and Laboratory I and one four-credit biology elective; CHE 101-102 General Chemistry and CHE L101-L102 General Chemistry Laboratory I, II; CHE 103-104 and CHE L103-L104 Introduction to Modern Chemistry and Laboratory I, II; PHS 107-108 Physical Science; PHY 201-202 General Physics; or PHY 207, 208 University Physics I, II.

In addition majors are strongly urged, but not specifically required, to take at least 18 credits in related fields such as psychology, mathematics, philosophy, political science, or economics as approved electives. Students who plan to do graduate work may need to take advanced work in languages.

### Minor in Anthropology

The anthropology minor shall consist of 18 credits including ANT 103 Cultural Anthropology and ANT 201 The Evolution of Man and Culture and any four upper level (300-400) anthropology courses, or any three upper level (300-400) anthropology courses plus one course in sociology. A minimum grade point average of 2.0 must be achieved in the minor, and courses that are taken to satisfy the general requirements for the B.S. or B.A. degree in arts and sciences may not be counted toward the minor.

### Minor in Sociology

The sociology minor shall consist of 18

credits including SOC 101 General Sociology and at least one of the following: SOC 318 Social Thought, SOC 340 Social Psychology or SOC 402 Sociological Theory. A minimum of 12 credits must be taken at the upper level (300-400). One course in anthropology may be used to fulfill the 18 credit requirement. A minimum grade point average of 2.0 must be achieved in the minor, and courses that are taken to satisfy the general requirements for the B.S. or B.A. degree in arts and sciences may not be counted toward the minor.

### PREPARATION FOR PROFESSIONAL STUDIES IN THE HEALTH SCIENCES

ARTHUR J. SEIDENBERG

Coordinator of Pre-Health Sciences Advising

**General Information.** The School of Arts and Sciences of the VCU Academic Campus provides preparatory programs for the following health science programs offered on the Medical College of Virginia (MCV) Campus of VCU: medicine, dentistry, dental hygiene, medical technology, nursing, occupational therapy, pharmacy, physical therapy, and radiologic technology. Pre-veterinary medicine advising is available through the School of Arts and Sciences, but there is no veterinary school in Virginia.

Most of the students enrolled in a pre-health science program in the School of Arts and Sciences will make application to one of the MCV Campus professional programs listed above. Unless informed otherwise by the student, School of Arts and Sciences advisors help the student to prepare an academic program which will meet the requirements of the MCV Campus professional programs. However, since more qualified students apply to the MCV Campus programs than can be accommodated, students are encouraged to apply to other professional schools and to use their elective courses to meet requirements of those institutions.

In addition, students are advised to plan alternative career choices in the event that they are not accepted into a professional program. This is particularly true for students enrolled in a two-year pre-health science program. Early preparation toward

meeting the requirements of the alternate choice major through judicious use of elective courses will enable the student to make a smooth transition from a pre-health science program to a baccalaureate program.

As indicated above, acceptance into a health science professional program has become more competitive in recent years due to the increase in the number of qualified applicants. Therefore, Virginia residency may be a factor in admission to MCV health science programs. Students desiring more information about residency should consult the appropriate admissions officer on the MCV Campus.

### Preparation for the Study of Medicine and Dentistry

Pre-Medical Advisor: Robert G. Bass, Chairman

Pre-medical Advisory Committee: Joseph P. Chinnici, Carolyn M. Conway, Lewis C. Goldstein, Frederick W. Hawkrige, T. Daniel Kimbrough, Jr., Walter L. Richards, Arthur J. Seidenberg, Billy W. Sloope, Billy L. Stump

Pre-admission Advisors: Members of the Department of Chemistry

**General Information.** In preparation for entering these professions, leaders in medical and dental education encourage prospective students to obtain a broad background in liberal arts education including not only sciences but also humanities and social sciences. Though one is not restricted to a science curriculum for entry into medical or dental school, pursuit of course work in a science area provides a sound background for further study in medicine or dentistry. A prospective student should check with the intended school of medicine or dentistry for its specific requirements.

Many schools of medicine, including the School of Medicine on the MCV Campus, require a minimum of three years (90 semester hours or the equivalent) in an accredited college or university, but preference is given to candidates who will earn a baccalaureate degree prior to the beginning of medical school. The following are the courses generally required for admission to most medical schools including the School of Medicine at VCU: biological science, general chemistry, organic chemistry, English, and physics. Other courses, such as

general physiology, genetics, mathematics through calculus, and behavioral sciences, though not required, are strongly recommended for the pre-medical student.

Many schools of dentistry, including the School of Dentistry on the MCV Campus, require a minimum of at least two years of liberal arts education taken in an accredited college or university. It is recommended that the pre-dental program include courses in biology, organic chemistry, physics, English, and the behavioral sciences. Applicants with three or four years of undergraduate study are considered to be better prepared than those with minimal preparation.

**Programs of Study.** Admission to and completion of a pre-medical or pre-dental program of studies offered by the School of Arts and Sciences does not constitute admission to the School of Medicine or School of Dentistry of Virginia Commonwealth University; the student must make separate application to the medical or dental school of his choice at the appropriate time.

Most students entering the School of Arts and Sciences with an interest in preparing for medical or dental school will apply as a "pre-medical" or "pre-dental" student. This classification as pre-medical or pre-dental exists to identify the student's future career interests; the student does not earn a "pre-medical" or "pre-dental" degree. As the student begins to clarify his academic interests through regular conversations with his assigned pre-medical or pre-dental advisor, the student will "change his major" to one of the regular four-year degree programs offered in the School of Arts and Sciences, while, at the same time, completing the necessary prerequisites for application for admission to the medical or dental school or his choice.

The Bachelor of Science in biology, the Bachelor of Science or Bachelor of Arts in chemistry (with the proper selection of electives), and the Bachelor of Science in science programs offered at the Academic Campus of VCU provide excellent opportunities to complete the necessary prerequisites for application to a medical or dental school.

In addition, these curricula allow a stu-

dent to plan a program for entry into medical or dental schools which accept students upon completion of three years of successful undergraduate work. The university will award a Bachelor of Science degree to a student who has successfully completed the first year of an accredited medical or dentistry school provided he has completed all the general requirements for the School of Arts and Sciences and the requirements in his major. Successful completion of the first year of medical or dental school will be accepted as 30 credits of electives towards the student's total hours.

### **Preparation for the Study of Veterinary Medicine**

RUSSELL V. BROWN, Advisor

The Bachelor of Science in chemistry, the Bachelor of Science in science (with the proper selection of electives), and the Bachelor of Science in biology programs offered at the Academic Campus provide excellent opportunities to complete the necessary prerequisites for application to a veterinary school.

### **PREPARATION FOR THE STUDY OF DENTAL HYGIENE**

JAMES E. GATES, Coordinator,

Erin J. Beacham, Robert C. Markham, Advisors

The curriculum in pre-dental hygiene offered by the School of Arts and Sciences meets the minimum academic requirements for application to many professional programs, including the Bachelor of Science degree program in dental hygiene offered through the School of Dentistry on the MCV Campus. Students intending to apply to the junior and senior year professional program at another institution should consult that bulletin for the exact prerequisite courses.

Admission to and satisfactory completion of the following two-year preparatory program offered by the School of Arts and Sciences does not constitute admission to the junior and senior year professional program on the MCV Campus. The student must make separate application to that professional program at MCV through the Director of Admissions, Medical College of

Virginia, Box 163, MCV Station, Richmond, Virginia 23298, in the fall of the year preceding the year of desired admission. Admission to the program at MCV will be based on scholastic record, demonstrated aptitude and interest, and a personal interview by the departmental admissions committee.

	Credits
ENG 101-102 Composition and Rhetoric .....	6
MAT 101 College Algebra .....	3
CHE 101-102 General Chemistry .....	8
CHE L101, L102 Laboratory I, II .....	2
BIO 101, L101 General Biology, Laboratory I ..	4
BIO 205 Basic Human Anatomy .....	4
BIO 206 Human Psychology .....	4
PSY 101 General Psychology .....	3
SOC 101 General Sociology .....	3
SPE 121 Effective Speech .....	3
Approved Electives .....	(minimum) 20
	(minimum) 60

PREPARATION FOR THE STUDY OF MEDICAL TECHNOLOGY

Robert G. Bass, Frederick W. Hawkrige, Donald D. Shillady, Advisors

The curriculum in pre-medical technology offered by the School of Arts and Sciences meets the minimum academic requirements for application to many professional programs, including the Bachelor of Science degree program in medical technology offered through the School of Allied Health Professions on the MCV Campus. Students intending to apply to a professional program at another institution should consult that bulletin for the exact prerequisite courses. Any student who wishes to transfer to a school other than MCV must transfer to a school that will confer a degree at the completion of the fourth year.

Admission to and satisfactory completion of the following two-year preparatory program offered by the School of Arts and Sciences does not constitute admission to the junior and senior year professional program on the MCV Campus. The student must make separate application to that professional program at MCV through the Director of Admissions, Medical College of Virginia, Box 163, MCV Station, Richmond, Virginia 23298, in the fall of the year preceding the year of desired admis-

sion. Admission to the program at MCV will be based on scholastic record, demonstrated aptitude and interest, and a personal interview by the departmental admissions committee.

	Credits	
	1st Sem.	2nd Sem.
First Year		
CHE 101-102 General Chemistry .		
CHE L101-L102 General Chemistry Laboratory I, II .....	1	1
ENG 101-102 Composition and Rhetoric .....	3	3
MAT 101 College Algebra or MAT 102 Trigonometry .....	3	—
Humanities or Social Science Electives .....	—	6
BIO 101-102 General Biology .....	3	3
BIO L101, L102 General Biology Laboratory I, II .....	1	1
	18	18
Second Year		
CHE 301 Organic Chemistry .....	3	—
CHE L301 Organic Chemistry Laboratory I .....	1	—
CHE 202 Quantitative Analysis ..	—	4
BIO 205 Basic Human Anatomy ..	4	—
BIO 206 Human Physiology .....	—	4
Humanities or Social Science Electives .....	6	6
	14	14

PREPARATION FOR THE STUDY OF NURSING

MARGARET L. MAY, Coordinator  
Jane Bieber, Robert W. Maher, Sara M. McCowen, Leo D. Montroy, John F. Pagels, Arthur J. Seidenburg, Advisors

The curriculum in pre-nursing offered by the School of Arts and Sciences meets the minimum academic requirements for application to many professional programs, including the Bachelor of Science degree program in nursing offered through the School of Nursing on the MCV Campus. Students intending to apply to the junior and senior year professional program at another institution should consult that bulletin for the exact prerequisite courses.

Admission to and satisfactory completion of the following two-year preparatory program offered by the School of Arts and Sciences does not constitute admission to the junior and senior year professional

program on the MCV Campus. The student must make separate application to that professional program at MCV through the Director of Admissions, Medical College of Virginia, Box 163, MCV Station, Richmond, Virginia 23298, in the fall of the year preceding the year of desired admission. Admission to the program at MCV will be based on scholastic record, demonstrated aptitude, and interest.

	<i>Credits</i>
ENG 101-102 Composition and Rhetoric .....	6
History Electives .....	6
PSY 101 General Psychology .....	3
PSY 304 Developmental Psychology .....	3
SOC 101 General Sociology .....	3
CHE 103-104 Introduction to Modern Chemistry	6
CHE L103-L104 Laboratory I, II .....	2
BIO 101, L101 General Biology, Laboratory I ..	4
BIO 205 Basic Human Anatomy .....	4
BIO 206 Human Physiology .....	4
MAT 101 College Algebra or MAT 111 Basic Mathematics for Behavioral, Social, and Management Sciences or STA 213 Introduction to Statistics (STA 213 preferred) .....	3
Social Science Electives .....	9
Humanities Electives .....	6
Approved Electives .....	1 (minimum)
	—
	(minimum) 60

## PREPARATION FOR THE STUDY OF OCCUPATIONAL THERAPY

ARTHUR J. SEIDENBERG, Coordinator  
Alan V. Briceland, Eugene J. Shiles,  
Kenneth A. Stackhouse, William A. Thedford,  
James A. Wood, Advisors

The curriculum in pre-occupational therapy offered by the School of Arts and Sciences meets the minimum academic requirements for application to many professional programs, including the Bachelor of Science degree program in occupational therapy offered through the School of Allied Health Professions on the MCV Campus. Students intending to apply to the junior and senior year professional program at another institution should consult that bulletin for the exact prerequisite courses.

Admission to and satisfactory completion of the following two-year preparatory program offered by the School of Arts and Sciences does not constitute admission to the junior and senior year professional program on the MCV Campus. The student

must make separate application to that professional program at MCV through the Director of Admissions, Medical College of Virginia, Box 163, MCV Station, Richmond, Virginia 23298, in the fall of the year preceding the year of desired admission. Admission to the program at MCV will be based on scholastic record, demonstrated aptitude and interest, and a personal interview by the departmental admissions committee.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
ENG 101-102 Composition and Rhetoric .....	3	3
PSY 101 General Psychology .....	3	—
SOC 101 General Sociology .....	3	—
BIO 101 General Biology .....	3	—
BIO L101 General Biology Laboratory I .....	1	—
BIO 205 Basic Human Anatomy or BIO 206 Human Physiology .....	—	4
Electives .....	3	9
	16	16
<i>Second Year</i>		
PSY 304 Developmental Psychology .....	3	—
PSY 409 Psychology of Personality Psychology Elective .....	3	—
BIO 205 Basic Human Anatomy or BIO 206 Human Physiology .....	—	3
Sociology elective .....	4	—
Electives .....	2-3	12
	15	15

These are considered minimum requirements. Students are encouraged to pursue additional study in biology, psychology, and sociology. Students are also encouraged to take mathematics and statistics courses to increase their curricular options at the end of this preparatory program.

## PREPARATION FOR THE STUDY OF PHARMACY

Stuart J. Silvers, Joseph A. Topich, Lawrence J. Winters, Advisors

The curriculum in pre-pharmacy offered by the School of Arts and Sciences meets the minimum academic requirements for application to many professional programs,



including the Bachelor of Science degree program in pharmacy offered through the School of Pharmacy on the MCV Campus. Students intending to apply to the professional program at another institution should consult that bulletin for the exact prerequisite courses.

Admission to and satisfactory completion of the following two-year preparatory program offered by the School of Arts and Sciences does not constitute admission to the final three years of the professional program on the MCV Campus. The student must make separate application to that professional program at MCV through the Director of Admissions, Medical College of Virginia, Box 163, MCV Station, Richmond, Virginia 23298, in the fall of the year preceding the year of desired admission. Admission to the program at MCV will be based on scholastic record, demonstrated aptitude and interest, and a personal interview by the school admissions committee.

	Credits	
	1st Sem.	2nd Sem.
<i>First Year</i>		
BIO 101-102 General Biology . . . .	3	3
BIO L101, L102 General Biology Laboratory I, II . . . . .	1	1
ENG 101-102 Composition and Rhetoric . . . . .	3	3
MAT 101-102 College Algebra and Trigonometry or MAT 102-200 College Algebra and Trigonometry and Calculus with Analytic Geometry . . . . .	3	3-4
CHE 101-102 General Chemistry .	4	4
CHE L101-L102 General Chemistry Laboratory I, II . . . .	1	1
	<hr/> 15	<hr/> 15-16
<i>Second Year</i>		
ECO 201 Principles of Economics	3	—
PHY 201-202 General Physics . . .	4	4
Approved Humanities and Social Sciences Electives . . . . .	9	9
Approved Electives . . . . .	—	3-4
	<hr/> 16	<hr/> 16-17

The program as outlined above includes 41 hours in required subject areas and 22 hours of electives, of which a minimum of 18 hours must be selected from areas in the humanities and social sciences. Organic

chemistry credits are not acceptable in meeting the above prerequisites.

**PREPARATION FOR THE STUDY OF PHYSICAL THERAPY**

JACKSON E. JEFFREY, Coordinator

Paul F. Dvorak, Alpheus F. Holmes, Ernst J. Lunsford, James A. Pennline, Robert B. Redmon, Jr., Advisors

The curriculum in pre-physical therapy offered by the School of Arts and Sciences meets the minimum academic requirements for application to many professional programs, including the Bachelor of Science degree program in physical therapy offered through the School of Allied Health Professions on the MCV Campus. Students intending to apply to the junior and senior year professional program at another institution should consult that catalogue for the exact prerequisite courses.

Admission to and satisfactory completion of the following two-year preparatory program offered by the School of Arts and Sciences does not constitute admission to the junior and senior year professional program on the MCV Campus. The student must make separate application to that professional program at MCV through the Director of Admissions, Medical College of Virginia, Box 163, MCV Station, Richmond, Virginia 23298, in the fall of the year preceding the year of desired admission. Admission to the program at MCV will be determined by the departmental admissions committee. Factors that will be considered by the committee are the student's scholastic record and professional suitability. In addition, the student is expected to have acquired knowledge concerning the practice and goals of the profession of physical therapy. A personal interview is required as a part of the admissions procedure.

	Credits	
	1st Sem.	2nd Sem.
<i>First Year</i>		
BIO 101-102 General Biology . . . .	3	3
BIO L101, L102 General Biology Laboratory I, II . . . . .	1	1
ENG 101-102 Composition and Rhetoric . . . . .	3	3
CHE 103-104 Introduction to Modern Chemistry . . . . .	3	3



CHE L103-L104 Introduction to Modern Chemistry Laboratory I, II .....	1	1
MAT 101-102 College Algebra and Trigonometry or MAT 102 Trigonometry .....	3	3(0)
PSY 101 General Psychology .....	3	—
Approved Elective .....	—	3
	17	14-17
<i>Second Year</i>		
PHY 201-202 General Physics .....	4	4
Psychology Elective .....	3	—
Social Science Electives .....	3	3
Approved Electives .....	6-7	9-10
	16-17	16-17

Recommended approved electives are: foreign language (Latin, French, or German), mathematics (analytic geometry, calculus), social science, biological sciences, and physical education courses such as gymnastics, tumbling, and modern dance.

It is suggested that the social science courses be selected from the following areas: adolescent psychology, anthropology, child psychology, economics, history, personality development, philosophy, psychology of adjustment, sociology, and statistics.

## PREPARATION FOR THE STUDY OF RADIOLOGIC TECHNOLOGY

LAWRENCE J. WINTERS, Advisor

The curriculum in pre-radiologic technology offered by the School of Arts and Sciences meets the minimum academic requirements for application to many professional programs, including the Associate of Science degree program in radiologic technology offered through the School of Allied Health Professions on the MCV Campus. Students intending to apply to the final years of the professional program at another institution should consult that bulletin for the exact prerequisite courses.

Admission to and satisfactory completion of the following one-year preparatory program offered by the School of Arts and Sciences does not constitute admission to the final two years of the professional program on the MCV Campus. The student must make separate application to that

professional program at MCV through the Director of Admissions, Medical College of Virginia, Box 163, MCV Station, Richmond, Virginia 23298, as soon as possible after February 1 of the year of desired admission. Admission to the program at MCV will be based on scholastic record, demonstrated aptitude and interest, and a personal interview by the departmental admissions committee.

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year (Academic Campus)</i>		
BIO 103-104 Anatomy and Physiology .....	3	3
ENG 101-102 Composition and Rhetoric .....	3	3
MAT 101 College Algebra .....	3	—
PHY 103 Introductory Physics for Radiology .....	—	3
PSY 101 General Psychology .....	3	—
Electives .....	3	6
	15	15

## PREPARATION FOR PROFESSIONAL STUDIES IN LAW

Dennis W. Johnson, Department of Political Science; Walter S. Griggs, Jr., Department of Business Administration and Management, Advisors

Few law schools list specific undergraduate courses as prerequisites for admission. Thus, the student who is considering law school may major in virtually any department in the School of Arts and Sciences, the School of Business, or the School of Community Services. Students, however, are encouraged to obtain a broad liberal arts background with emphasis on the social sciences and English.

The pre-law advisors maintain continual contact with law school admissions offices and will assist any interested student with questions concerning curriculum, financial assistance, application procedure, or the law school admission test.

## PREPARATION FOR THE STUDY OF ENGINEERING

G. Bruce Taggart, Advisor

Students wishing to pursue a career in any of the fields of engineering should enroll as a physics major in the Department of Physics

and Physical Science. The department offers two programs: 1. Pre-engineering and 2. Dual physics/engineering degree program. **The pre-engineering program** at VCU affords the student a broad background in science and mathematics, as well as exposure to the humanities and social science, before specializing in a particular area of engineering. The department will assist qualified students in transferring to accredited engineering schools upon the completion of the program.

A typical two-year program for students ready to enter directly into calculus would be as follows:

**Freshman Year.** CHE 101-102 General Chemistry; CHE L101-L102 General Chemistry Laboratory I, II; ENG 101-102 Composition and Rhetoric; MAT 200-201 Calculus with Analytic Geometry; PHY 207, 208 University Physics I and II.

**Sophomore Year.** MAT 307 Multivariate Calculus; MAT 301 Differential Equations; PHY 320 Introduction to Modern Physics; CSC 201 Computer Science I; Humanities or Social Science Electives; Science Electives (from PHY 331 Electric Circuits and Electronics; PHY 337 Classical Mechanics; PHY 338 Mechanics of Continuous Media; PHY 340 Introduction to Statistical Physics and Thermodynamics; PHY 362 Electromagnetism; or CSC 202 Computer Science II.)

Students who are interested in the chemical or biological aspects of engineering may wish to substitute courses in these areas in lieu of some physics courses in the second year. Those interested in engineering but whose background preparation does not warrant entrance into the two-year sequence above may spread their work over three years. Students should see the pre-engineering advisor for details of their individual programs.

A dual physics/engineering degree program is offered in cooperation with Old Dominion University. For further details, see physics and physical science section of this bulletin, page 108.

## COURSE DESCRIPTIONS

### INTERDISCIPLINARY COURSES

THOMAS O. HALL, JR.

Coordinator, Humanities

DAVID D. FRANKS

Coordinator, Social Science

M. THOMAS INGE, MELVIN I. UROFSKY

Coordinators, American Studies

**AMS 195 Richmond.** 15 contact hours. 1 credit. A series of mini-courses dealing with aspects of Richmond's literary and historical importance from the city's beginning to the present.

**AMS 394 Perspectives in American Studies.** Semester course; 3 lecture hours. 3 credits. Prerequisite: 6 credits in American-related courses. An introduction to the methods, significant works, and major trends in American studies.

**AMS 395 Topics in American Studies.** Semester course; 3 lecture hours. 3 credits. Selected issues or problems in American civilization with materials drawn from such areas as history, the social sciences, philosophy, literature, the arts, and mass communications. May be repeated once for credit.

**HUM 205 Course by Newspaper.** Semester course; 3 credits. Maximum total 9 credits. A discussion of subjects of interest to students and the general public written for syndicated newspaper articles by distinguished scholars from a variety of perspectives. Students enrolled for credit will attend a minimum of 3 dialogue sessions and take a mid-term and final examination based on the newspaper articles, a course reader, and a study guide.

**HUM 295 The Great Ideas of Civilized Man.** Semester course; 3 lecture hours. 3 credits. Maximum total 6 credits. Prerequisite: sophomore standing. Course may be repeated once under different topic. An interdisciplinary course structured around archetypal themes, an exploration in depth of ideas which have occupied the thoughts of mankind. Material covered will include selected readings from literature, philosophy, and religion.

**HUM 305/European Cultures 305 Aspects of French Culture.** Semester course; 3 lecture hours. 3 credits. A broad interdisciplinary approach to an understanding of French culture: language and literature, art, architecture, music and dance, history, love traditions, philosophy, anthropology, and contemporary popular culture. Lectures in English by visiting scholars and experts. (May not be taken for foreign language credit.)

**HUM 306/European Cultures 306 Aspects of Spanish Culture.** Semester course; 3 lecture hours. 3 credits. A broad interdisciplinary approach to an understanding of Spanish culture: language and literature, art, architecture, music and dance, history, philosophy, anthropology, and contemporary popular culture. Lectures in English by visiting scholars and experts. (May not be taken for foreign language credit.)

**HUM 307/European Cultures 307 Aspects of German Culture.** Semester course; 3 lecture hours. 3 credits. A broad interdisciplinary approach to an understanding of German culture: language and literature, art, architecture, music, history, philosophy, anthropology, and contemporary popular culture. Lectures in English by visiting scholars and experts. (May not be taken for foreign language credit.)

**HUM 311 Classical Mythology.** Semester course; 3 lecture hours. 3 credits. The basic myths of the Greek and Roman heritage. Their impact in culture then and now; from the origins of Greek myth to the superstitions of the late Roman and early Christian world.

**HUM 321 Politics in the Arts.** Semester course; 3 lecture hours and film lab. 3 credits. Exploration of political content of modern art forms, emphasizing political values and experiences expressed through the media of contemporary fiction and film. Topics include: myth and ideology in politics; the search for political order, authority, and leadership; equality, justice, and fraternity; alienation, violence, and revolution; human experience with political institutions, and similar topics. Special concern is shown for these values and experiences within urban, industrial-technological society.

**HUM 425/ARTS 425 Art, Music, and Literature of Restoration and Eighteenth Century England.** Semester course; 3 lecture hours. 3 credits. An examination of the characteristics and interrelationships of certain selected works of art, literature, and music of Restoration and Hanoverian England. Dryden, Purcell, Wren, Pope, Burlington, Hogarth, Handel, and Walpole are among the major figures to be considered.

**SCC 295 Issues in Social Science.** Semester course; variable credits, 1-3 credits per semester, maximum total 6 credits. An interdisciplinary course structured around social issues pertinent to today's society. See schedule of classes for particular issue to be covered and the semester credit for which each course will be offered.

**SSC 301 The Ascent of Man.** Semester course; 3 credits. A course through television. The series traces the development of science as an expression of man.

**330 The Psychology and Sociology of Death.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PSY 101 or SOC 101. An interdisciplinary study of the encounter with death, death and personality, the organizational processing of death, and demographic regularities of dying. The course is jointly taught by sociologists and psychologists.

**SSC 340 Human Sexuality.** Semester course; 3 lecture hours. 3 credits. A study of the variety of the forms, sources, and consequences of human sexual behaviors and the attitudes, beliefs, and values associated with them. The data and its analysis are directed to the significance of sex in human experience.

**UNS 295 Interdisciplinary Topics.** Semester course; variable credits; 1-4 credits per semester, maximum total in all university studies courses 8 credits. An

interdisciplinary course designed to give the student an overview of a topic not associated with a particular discipline.

## AFRO-AMERICAN STUDIES

Rutledge M. Dennis, Coordinator

The following courses in the area of Afro-American Studies are open to all students, subject to curricular requirements for their degree programs. Courses in Afro-American Studies are designed to help students gain knowledge and appreciation of the history and culture of African people and their contributions to world civilizations.

## COURSES IN AFRO-AMERICAN STUDIES (AAS)

**103, 104 Introduction to Afro-American Studies.** Semester courses; 3 lecture hours. 3, 3 credits. A broad overview of the historical, social, economic, psychological, and cultural aspects of Afro-American life.

**105/Sociology 105 Sociology of Racism.** Semester course; 3 lecture hours. 3 credits. The course will explore the direct and indirect ways in which racial attitudes are acquired, their effect on individuals and society, and the institutional and ideological manifestations of racism as a "faith system," as exploitation, and as a form of human conflict. The central focus of interest will be on black-white relationships.

**200/Anthropology 200 Africanism.** Semester course; 3 lecture hours. 3 credits. An exploration of the unique and diverse cultural heritage shared by Africans. Particular attention will be given to life-styles and work-styles as these relate to knowledge, behavior, ideas, and objects.

**204 Africa in Transition.** Semester course; 3 lecture hours. 3 credits. Prerequisite: AAS 200 or permission of instructor. The impact of modern social change upon the tradition aspects of African life. Various aspects of social change as it applies to the African today will be explored.

**245, 246/Music History 245, 246 Introduction to Afro-American Music.** Semester courses; 3 lecture hours. 3, 3 credits. An introductory survey of black involvement with the development of music in America from 1607 to the present. Afro-American musical styles will be studied from many aspects including their African roots and contemporary popular expression.

**303/Theatre 303 Black Theatre.** Semester course; 3 lecture hours. 3 credits. A study of the major developments in the evolution of black theatre through readings and studio performances in black related and black theatre dramaturgy.

**305/Sociology 305 Sociology of the Black Family.**

Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101 or permission of instructor. A socio-history of the development of the dynamics of the black family.

**307/Religious Studies 307 Black Religion.** Semester course; 3 lecture hours. 3 credits. An analysis of the role of religion in the lives of blacks with an emphasis on African religions and philosophies, the black church in America, and the roles of the various faiths, sects, and cults.

**310/Economics 310 Economics and Poverty.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. A study of the economic problems of low income groups and agency and foundation programs designed to encounter these problems.

**311/Urban Studies 337 Urbanization and Blacks: A Cross-Cultural Comparison.** Semester course; 3 lecture hours. 3 credits. Comparisons and evaluation of past and contemporary urbanization patterns of black people primarily in Africa and America, their current social, economic, and political problems, and the range of solutions being proposed for dealing with them.

**314/English 314 Black American Writers.** Semester course; 3 lecture hours. 3 credits. An examination of the contributions of black writers in America from colonial times to the present.

**317/Economics 317 Money and Banking in the Black Financial Community.** Semester course; 3 lecture hours. 3 credits. Money and banking blended with the problems of black finance. This course is acceptable as a substitute for Economics 307.

**322/Psychology 322 Personality and Behavior of the Afro-American.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PSY 101. A study of personality factors, such as motivation, ego functioning, and the socialization processes with special emphasis on living conditions of Afro-Americans.

**333/Geography 333 Geography of Africa.** Semester course; 3 lecture hours. 3 credits. A study of land forms, climate, peoples, boundaries, trade, and cultural groupings of the African continent.

**343/Political Science 343 Black Political Thought.** Semester course; 3 lecture hours. 3 credits. An historical and sociological perspective on the political and social ideas of black thinkers from David Walker to the present.

**358/History 358 Americans from Africa: A History.** (changed from HIS 410/ AAS 410) Semester course; 3 lecture hours. 3 credits. A survey of the history and contributions of Negro Americans from the African background to the present time. This course has been designed to be offered through a series of television lectures with seminars held on campus and at other points.

**363/English 363 African Literature.** Semester course; 3 lecture hours. 3 credits. The study of African oral performances and written literatures in English with emphasis on West and South Africa.

**365/English 365 Caribbean Literature.** Semester course; 3 lecture hours. 3 credits. A survey of West Indian writings. Attention will be given to African, European, and Amerindian influences, as well as to the emergences of a West Indian literary tradition.

**391/History 391 History of West Africa.** Semester course; 3 lecture hours. 3 credits. A study of the transformation of West African societies from the iron age to modern, independent nation-states, with stress on the roles of reforming Islam, European economic and cultural influences, and European colonialism.

**392/History 392 History of Central and East Africa.** Semester course; 3 lecture hours. 3 credits. A history of the broad Bantu, Nilotic, and Cushitic middlebelt of tropical Africa from the European invasion to the present, emphasizing the factors leading to the development of modern nation-states and the problems which beset these nations today.

**393/History 393 History of South Africa.** Semester course; 3 lecture hours. 3 credits. A study of South Africa from prehistoric times to the present, emphasizing the pluralistic nature of the evolution of South African society and the interaction among the various communities and ethnolinguistic groups composing it.

**413/Art History 412 African and Oceanic Art.** Semester course; 3 lecture hours. 3 credits. A study of the architecture, painting, sculpture, and civilizations of the major art-producing tribes of West Africa and Oceania from the thirteenth century to the present.

**495 Topics in Afro-American Studies.** Semester course; 3 lecture hours. 3 credits. May be repeated with different topics for a maximum of 9 credits; 3 credits may be applied to the Afro-American Studies minor. An in depth study of specialized areas of Afro-American Studies.

**497 Independent Study.** Semester course; variable credit, maximum 4 credits per semester; maximum total in all independent study courses 4 credits. Open generally only to students of junior and senior standing who have acquired at least 12 credits in Afro-American Studies courses. Determination of the amount of credit and permission of the instructor and coordinator must be procured prior to registration for the course.

## COURSES IN ANTHROPOLOGY (ANT)

**103 Cultural Anthropology.** Semester course; 3 lecture hours. 3 credits. A general survey of the field of anthropology; the development of Homo Sapiens and their culture. Liberal use is made of area studies.

**200/Afro-American Studies 200 Africanism.** Semester course; 3 lecture hours. 3 credits. An exploration of the unique and diverse cultural heritage shared by Africans. Particular attention will be given to life-styles and work-styles as these relate to knowledge, behavior, ideas, and objects.

**201 The Evolution of Man and Culture.** Semester course; 3 lecture hours. 3 credits. Recommended for

majors and designed for especially interested students. An introduction to physical anthropology and archaeology, this course deals with the development of *Homo Sapiens* and their culture. Human evolution will be considered in the light of the fossil record, primate studies, and genetics. The development of man's culture from the earliest evidences to the rise of civilization. The course emphasizes adaptation as a critical element in the understanding of human development.

**251 Introductory Archaeology.** Semester course; 3 lecture hours, 3 credits. Prerequisite: ANT 103. History, development, and current trends in research methods and theories in archaeology illustrated with studies of representative areas of the world.

**271 Experimental Archaeology and Prehistoric Technology.** Semester course; 2 lecture and 2 laboratory hours, 3 credits. Prerequisite: ANT 103. The course deals with the manner in which members of prehistoric cultures made tools and implements for subsistence purposes; field work and research projects are required of each student; these will be related to the study of past cultures, and the influence of subsistence and technology on culture.

**305 Social Anthropology.** Semester course; 3 lecture hours, 3 credits. Prerequisite: a previous or concurrent course in social science. Examination of the institutions of simple and peasant societies with an emphasis on the cross-cultural understanding of marriage, family, political, and economic groupings and activities. Selected case studies.

**319/Sociology 319 Field Methods in Sociology-Anthropology.** Semester course; 3 lecture hours, 3 credits. Prerequisite: SOC 101 or ANT 103. The study and application of qualitative field techniques for the collection and analysis of primary sociological and anthropological data. The student will use observations, interviewing, and field work techniques.

**342 Cultural Ecology.** Semester course; 3 lecture hours, 3 credits. Prerequisite: ANT 103 or permission of instructor. Culture as an ecological mechanism adapting *Homo Sapiens* to their environment. Cultural development and complexity, as well as differences and similarities between cultures are seen as a result of the way environmental resources are utilized through technology and cultural institutions. Hunting, gathering, pastoralism, and various types of agricultural and industrialization are covered as different types and levels of ecological adaptation.

**350, 351 Peoples and Cultures of the World.** Semester course; 3 lecture hours, 3, 3 credits. Prerequisite: ANT 103. A survey of the culture and traditions of a particular geographic area. Subject matter includes culture, history, language distribution, varieties of social and political institutions, religion, subsistence pursuits, and effects of change. See schedule of classes for area being offered in a particular semester.

**360, 361 Archaeology of the World.** Semester course; 3 lecture hours, 3, 3 credits. Prerequisite: ANT 103, 201, or 251. The prehistory of specific regional areas of the world (depending on semester and professor). The

areas covered include the Old World (Europe and Asia), Mesoamerica, Australia, or other regions. The course will explore the development of culture within the specific area through use of an anthropological framework and archaeological methods and materials. See schedule of classes for area covered in a specific semester.

**369 Urban Anthropology.** Semester course; 4 lecture hours, 4 credits. Prerequisite: SOC 101 or ANT 103. The application of traditional anthropological techniques to urban settings starting with the early studies of small rural communities to the ethnographic accounts of subcultures within modern metropolitan regions. Special emphasis upon field methods and the application of these to actual field experiences of students.

**375 Field Archaeology.** Semester course; 3 lecture and 8 field and laboratory hours, 6 credits. Prerequisites: ANT 201 or 251. Techniques of field methods, artifacts, and recording. Excavations in the field and analysis in the laboratory.

**395 Topics in Anthropology.** Semester course; 3 lecture hours, 3 credits, maximum 6 credits per semester, maximum total of 18 credits in departmental topics courses which may be applied to the major. Prerequisite: permission of instructor. Seminar on current specialized areas of anthropological interest. See schedule of classes for specific topic to be offered each semester.

**405 Tribal and Peasant Economics.** Semester course; 3 lecture hours, 3 credits. Economic institutions and practices in simple and peasant societies and their relationship to other kinds of social behavior and institutions. Topics covered include: the character of non-monetary economics, organization and production, forms of money-less exchange, markets, wealth and its uses, and the effects of economic development.

**425 Religion in Folk Societies.** Semester course; 3 lecture hours, 3 credits. A survey of anthropological research and theories of religion in folk societies, with special emphasis on ritual and function.

**447/Linguistics 447 Language in Its Cultural Context.** Semester course; 3 lecture hours, 3 credits. Prerequisite: ANT 103 or permission of instructor. How the use of language is affected by the social and cultural environment. Some attention is given to the analysis of language as such but the emphasis is on the relationship between language and culture. Topics include, language as an indicator of social change, language and taboo, bilingualism, linguistic nationalism, and language borrowing.

**454 Anthropological Theory.** Semester course; 3 lecture hours, 3 credits. Prerequisite: SOC 101 or ANT 103. Major theoretical perspectives in social and cultural anthropology.

**461/Mass Communications 461 The Documentary.** Semester course; 3 lecture and 2 laboratory hours, 3 credits. Prerequisites: MAC 361, 363-364, or permission of instructor. An examination of documentary

concepts through analysis of radio, television, and film documentaries. The course will center on the development, writing, and production of a documentary in the medium (radio, television, or film) of the student's choice.

**497 Independent Study.** Semester course; variable credit, maximum 6 credits per semester; maximum total for all independent study courses 12 credits. Open generally only to students of junior or senior standing who have acquired at least 12 credits in the departmental discipline. Determination of the amount of credit and permission of the instructor and department chairman must be procured prior to registration for the course. Cannot be used in place of existing courses.

## COURSES IN ARABIC (ARA)

**101-102 Elementary Arabic.** Continuous course; 3 lecture and 2 laboratory hours, 4-4 credits. Elementary grammar, reading, and oral drills.

**201-202 Intermediate Arabic.** Continuous course; 3 lecture hours, 3-3 credits. Rapid review of the essentials of grammar, conversation, readings from Arabic literature, and the news media.

## COURSES IN BIOLOGY (BIO)

**NOTE:** The following courses do not apply toward the major in: biology: Biology 103-104, 106, 108, 205, 206, 209, 210, 315, 332, 465.

**101-102 General Biology.** Continuous course; 3 lecture hours, 3-3 credits. First semester: a consideration of the fundamental properties of living systems. Second semester: organismal biology and ecology.

**L101 General Biology Laboratory I.** Semester course; 2 hours, 1 credit. Laboratory demonstrations correlated with Biology 101. Can be taken only concurrently with or subsequent to Biology 101.

**L102 General Biology Laboratory II.** Semester course; 2 hours, 1 credit. Laboratory demonstrations correlated with Biology 102. Can be taken only concurrently with or subsequent to Biology 102.

**103-104 Anatomy and Physiology.** Year course; 2 lecture and 2 laboratory hours, 6 credits. A study of the normal structure and function of the human body. (Open only to students in hospital-affiliated, medical secretarial, and radiologic technology programs.)

**106 Nutrition.** Semester course; 3 lecture hours, 3 credits. The fundamental principles of normal nutrition and their application in promoting growth and maintaining health; modification of these diets to meet the needs of persons with common pathological conditions. (Open only to students in hospital-affiliated programs.)

**108 Microbiology.** Semester course; 2 lecture and 2 laboratory hours, 3 credits. A study of the microscopic agents of disease, including methods of disinfection, factors of infection and immunity, and an introduction to the important infectious diseases. Laboratory em-

phasis is on methods of study and proper techniques. (Open only to students in hospital-affiliated programs.)

**200 Biological Terminology.** Semester course; 1 lecture hour, 1 credit. Prerequisite: a course in biology. The study of Greek and Latin word roots, prefixes, and suffixes in the vocabulary of biology through readings and drills with the aid of a dictionary.

**205 Basic Human Anatomy.** Semester course; 2 lecture and 4 laboratory hours, 4 credits. Prerequisite: BIO 101 and L101. A study of human body structure with emphasis on the skeleto-muscular aspects, utilizing the cat for dissection and human specimens and models as demonstrations. (Not applicable to the biology major.)

**206 Human Physiology.** Semester course; 3 lecture and 3 laboratory hours, 4 credits. Prerequisite: BIO 101 and L101. A study of the functioning of the human body with emphasis on the experimental procedures. (Not applicable to the biology major.)

**209 Medical Bacteriology.** Semester course; 2 lecture and 4 laboratory hours, 4 credits. Prerequisite: Bio 101 and L101. This course covers the general principles and techniques of bacteriology and the relations of these organisms to disease. (Not applicable to the biology major.)

**210 Elementary Human Genetics.** Semester course; 3 lecture hours, 3 credits. Prerequisite: 8 credits in biology. A study of the fundamental laws of genetic disorder and diseases of man. Does not fulfill the major requirements in biology. Not open to students who have completed BIO 310.

**218 Cell Biology.** (changed from BIO 318) Semester course; 3 lecture hours, 3 credits. Prerequisite: BIO 101, L101, 102, and L102 and 8 credits in chemistry. An introductory examination of the cellular and molecular aspects of biological processes in plants and animals.

**297 Independent Study.** Semester course; variable credit, maximum 2 credits per semester; maximum total credit for all independent study courses (BIO 297 and/or 497) 6 credits. Prerequisite: 8 credits in biology and an overall GPA of 3.0. Determination of the amount of credit and permission of the instructor and department chairman must be procured prior to registration for the course. A course designed to allow students to accomplish independent readings of biological literature under the supervision of a staff member.

**300 Basic Biological Microtechniques.** Semester course; 1 lecture and 5 laboratory hours, 3 credits. Prerequisite: BIO 101, L101, 102, and L102. Principles of microscopy, use of light, phase, and darkfield microscopy; photomicrography; processing, staining, and mounting plant and animal tissue; vital staining; isolation of cells and organelles.

**301 Vertebrate Morphology.** (changed from BIO 201) Semester course; 2 lecture and 6 laboratory hours, 4 credits. Prerequisite: BIO 101, L101, 102 and L102. The evolution of vertebrate forms as demonstrated by anatomical studies of selected vertebrate types.



**302 Animal Embryology.** Semester course; 2 lecture, 1 recitation, and 4 laboratory hours. 4 credits. Prerequisite: BIO 218. Study of basic reproductive and developmental processes during animal embryonic development. Topics include programming/packaging in the egg, cell-cell interactions, basic organogenesis, causes of abnormal development. Cellular mechanisms and the role of differential gene activity in developmental processes will be emphasized. Laboratory work includes observation of developmental processes and experimental work using living embryos of selected invertebrates and vertebrates.

**303 Bacteriology.** Semester course; 2 lecture, 1 recitation, and 4 laboratory hours. 4 credits. Prerequisite: BIO 218 and 8 credits in chemistry. A study of the morphology and physiology of bacteria as applied to their cultivation, identification, and significance to other organisms.

**307 Limnology.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: BIO 218. A physical and chemical approach to the study of aquatic ecosystems, with particular consideration given to testing and analysis of water quality, nutrient limitation and cycling, bioassay, and plankton surveys.

**308 Vertebrate Histology.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: BIO 101, L101, 102, and L102. The microscopic structure of vertebrate tissues and organs and the techniques used in the preparation of materials for histological study.

**309 Entomology.** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: BIO 101, L101, 102, and L102. A course designed to give the student an appreciation of insect life. Field and laboratory work is emphasized to illustrate insect diversification, diagnostic features, habitats, and development patterns. A project is required and some independent work will be necessary.

**310 Genetics.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BIO 218. The basic principles of genetics and eugenics with emphasis on their application.

**L310 Laboratory in Genetics.** Semester course; 3 laboratory hours. 1 credit. Prerequisite or co-requisite: BIO 310. A series of exercises and experiments designed to demonstrate the laws of heredity using a variety of eukaryotic organisms such as corn, onions, fruitflies, mice, and humans.

**311 General Physiology.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: BIO 218. Physiological principles illustrated by cells, tissues, organs, and organisms from the viewpoint of chemical and physical phenomena.

**312 Invertebrate Zoology.** (changed from BIO 204) Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: BIO 101, L101, 102, and L102. A survey of the invertebrate animals, examining morphologies, life cycles, evolutionary relationships, and the importance of these organisms to man. Selected

representative species will be studied in detail in the laboratory.

**313 Vertebrate Natural History.** Semester course; 2 lecture and 3 laboratory hours. 3 credits. Prerequisite: BIO 101, L101, 102, and L102. The natural history of vertebrates with emphasis on the species native to Virginia.

**315 Man and Environment.** 3 lecture hours. 3 credits. Open to non-majors. Prerequisite: junior or senior status. Not applicable to the biology major. A comparative study of the ecology and natural history of human populations, including the environments as determining factors in the evolution of human institutions and technology, resources management, and population crises; cultural traditions as mechanisms of population control, basic theory of population biology.

**317 Ecology.** (changed from BIO 400) Semester course; 3 lecture hours. 3 credits. Prerequisite: BIO 101, L101, 102, and L102. A study of the interaction of the organism and the biological and physical environments.

**L317 Ecology Laboratory.** (changed from BIO L400) Semester course; 3 laboratory hours. 1 credit. Prerequisite: BIO 317 or concurrent registration in BIO 317.

**319 Survey of the Plant Kingdom** (changed from BIO 207) Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: BIO 101, L101, 102, and L102. A study of representative plants and their life cycles.

**320 Botany of the Seed Plant.** (changed from BIO 208) Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: BIO 101, L101, 102, and L102. A study of the physiology, structure, and development of the seed plant.

**327 Plant Pathology.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: BIO 320. A study of the induction, development, and control of assorted diseases of vascular plants.

**332 Environmental Pollution.** Semester course; 3 lecture hours. 3 credits. Prerequisite: 8 credits in biology. The pollution in the environment with emphasis on the procedures for detection and abatement. (Not applicable to the biology major.)

**401 Industrial Microbiology.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BIO 303 or equivalent. General survey of microorganisms of industrial importance with special reference to the paper, food, textile, paint, petroleum, tobacco, chemical, and pharmaceutical industries.

**403 Biology of Fishes.** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: BIO 301 or permission of instructor. Evolution, taxonomy, structure, behavior, and ecology of fishes. Laboratory work will include special field trips for the collection of specimens.

**404 Comparative Animal Physiology.** Semester



course; 3 lecture and 4 laboratory hours. 4 credits. Prerequisites: BIO 218 and CHE 301, L301, 302, and L302. Comparative physiology of animals with an emphasis at the molecular level.

**405 Bacterial Physiology.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: BIO 303 or permission of instructor. The physiology of bacterial metabolism and growth.

**406 Mycology.** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: 16 credits of biology including BIO 319 or equivalent. The morphology, identification, and laboratory culture of fungi.

**409 Plant Anatomy.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: BIO 320. Preparation and study of cells, tissues, and organs of seed plants.

**410 Plant Taxonomy.** Semester course; 1 lecture and 5 laboratory hours. 3 credits. Prerequisite: BIO 101, L101, 102, and L102 or permission of instructor. Systematic survey of the vascular plant families with emphasis on relationships. Some field trips for observing local flora.

**411 Summer Flora.** Semester course; 1 lecture and 5 laboratory hours. 3 credits. Prerequisite: BIO 101, L101, 102, and L102 or permission of instructor. Field course in taxonomy of local summer flora.

**412 Radiation Biology.** Semester course; 3 lecture hours. 3 credits. Prerequisite: 16 credits in science, including eight credits in biology and/or permission of instructor. A presentation by a series of lectures and demonstrations of the fundamentals of radioactivity, including the properties of radiation and the application of radioisotopes and tracer methodology to the biological sciences and nuclear medicine. Included are the biological effects of ionizing radiation on living systems and the theoretical and practical aspects of radiation protection.

**L412 Radiation Biology Laboratory.** Semester course; 3 laboratory hours. 1 credit. Prerequisite or co-requisite: BIO 412. A series of laboratory experiences applying the practical aspects of radiometric determinations to the various areas of biology, including physiology.

**413 Parasitology.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: 14 credits in biology or permission of instructor. A survey of the life cycles, classification, host-parasite relationships, and general biology of animal parasites.

**414 Advanced Aquatic Ecology.** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite BIO 307 and BIO 317 or equivalent. BIO 317 may be taken concurrently. An advanced quantitative and analytical approach to the study of aquatic ecosystems, stressing current ecological theories and research with application to ecosystems modeling, systems analysis, fish and aquatic resource management; laboratory experimentation and individual student research and presentations will be required.

**415 Aquatic Macrophytes.** Semester course; 1 lecture and 5 laboratory hours. 3 credits. Prerequisite: BIO 410. Field and laboratory study of vascular plants of aquatic habitats; including collection and identification, and consideration of the ecology, morphology, and economic value of aquatic macrophytes.

**416 Ornithology.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: 8 credits of biology or permission of instructor. Basic biology of birds, with emphasis on their role in the environment.

**417 Mammalogy.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisites: 12 credits of biology and permission of instructor. Study of the characteristics, adaptive radiation, and distribution of mammals, with emphasis on North American forms.

**418 Plant Ecology.** Semester course; 3 lecture and 2 laboratory hours. Two three-day field trips required. 4 credits. Prerequisite: BIO 317 or permission of instructor. A lecture, field, and laboratory course concerned with the development, succession, and dynamics of plant communities and their interrelations with climate, soil, biotic, and historic factors.

**420 Plant Physiology.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisites: BIO 218 and 319 or 320 and CHE 301, L301, 302, and L302. Cell structure and function, water relations, inorganic plant nutrition, metabolism, and plant growth regulators.

**422 Evolution and Speciation.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BIO 310 or equivalent. Study of evolutionary principles, with emphasis on genetic and environmental factors leading to changes in large and small populations of plants and animals, and the mechanisms responsible for speciation.

**424 Endocrinology.** Semester course; 3 lecture hours. 3 credits. Prerequisites: BIO 218 and CHE 301, L301, 302, and L302 or equivalent. Study of hormonal control system at the organ, tissue, and cellular level; although the major emphasis will be on vertebrate endocrine systems, some discussion of invertebrate and plant control systems will be covered.

**429 Neuroanatomy.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: BIO 465 or permission of instructor. A study of the morphology and functional aspects of the central and peripheral nervous system of the human body.

**430 Human Genetics.** Semester course; 3 lecture hours. 3 credits. Prerequisites: BIO 310 and CHE 301, L301, 302, and L302. A broad topical approach, at an advanced level, to those aspects of genetics and eugenics specifically pertaining to humans. Topics include cytogenetics, pedigree analysis, genetic mapping, aneuploid syndromes, immunogenetics, inborn errors of metabolism, cancer, genetic engineering, behavior and intelligence, amniocentesis and genetic counseling, and consanguinity.

**435 Herpetology.** Semester course; 2 lecture hours. 2

credits. Prerequisite: BIO 301 or permission of instructor. A study of the phylogeny, natural history, and adaptation of the amphibians and reptiles.

**L436 Laboratory in Herpetology.** Semester course; 2 laboratory hours. 1 credit. Prerequisite: BIO 301 or equivalent and permission of instructor. Exercises on the anatomy, classification, and behavior of amphibians and reptiles. Two weekend field trips required.

**450. Developmental Biology.** (changed from BIO 350) Semester course; 2 lecture, 1 recitation, and 4 laboratory hours. 4 credits. Prerequisites: BIO 302 and 319 or 320. Study of cellular/molecular mechanisms of differentiation during embryonic and post-embryonic development in animals and plants. Genetic control at various levels leading to cell differentiation will be investigated in a number of developing systems, animal and plant embryos, seed germination, fern gametophyte, insect and amphibian metamorphosis, and animal regeneration. Laboratory work includes observation of developmental processes and experimental work using living material.

**455 Immunology and Serology.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: 16 credits in biology including BIO 218 and 8 credits in chemistry. Basic aspects of the immune response in higher animals. Study of the serological techniques used in biological research.

**462 Comparative Morphology of Vascular Plants.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: 6 credits of botany or permission of instructor. A study of the relationships between the various taxa of the Tracheophytes, based upon examination and comparison of organ development.

**465 Functional Human Anatomy.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: BIO 205 or equivalent and permission of instructor. A study of the anatomy and kinesiology of the human body using prosected specimens and the dissected cadaver. Particular emphasis is placed upon the study of the extremities. Not applicable to the major in biology, intended primarily for students in the Department of Occupational Therapy.

**495 Topics in Biology.** Semester course; variable credit, maximum 3 credits per semester; maximum total credit for all topics courses 6 credits. An in depth study or a selected topic in biology. See schedule of classes for specific topic(s) and prerequisites.

**497 Independent Study.** Semester course; variable credit, maximum 4 credits per semester, maximum total credit for all independent study courses (BIO 297 and/or 497) 6 credits. Open to juniors and seniors who have completed at least 12 credits in Biology and have an overall GPA of 3.0. Determination of the amount of credit and permission of instructor and department chairman must be procured prior to registration for the course. Activities include laboratory or field research under the direct supervision of a staff member. A minimum of 3 hours of supervised activity per week per credit hour is required.

## COURSES IN CHEMISTRY (CHE)

**101-102 General Chemistry.** Continuous course; 3 lecture and 1 recitation hour. 4-4 credits. Prerequisite or co-requisite: MAT 101 or 107. Fundamental principles and theories of chemistry, including qualitative analysis.

**L101 General Chemistry Laboratory I.** Continuous course; 3 laboratory hours. 1 credit. Prerequisite or co-requisite: CHE 101. Experimental work correlated with Chemistry 101.

**L102 General Chemistry Laboratory II.** Continuous course; 3 laboratory hours. 1 credit. Prerequisite or co-requisite: CHE 102. Prerequisite: CHE L101. Experimental work includes qualitative analysis.

**103-104 Introduction to Modern Chemistry.** Continuous course; 3 lecture hours. 3-3 credits. Fundamental principles and theories to provide an understanding of the scope and aims of modern chemistry with some emphasis on descriptive inorganic chemistry, organic chemistry, biochemistry, and geochemistry. (Unacceptable as a prerequisite for advanced chemistry courses.)

**L103 Introduction to Modern Chemistry Laboratory I.** Continuous course; 3 hours. 1 credit. Prerequisite or co-requisite: CHE 103. Experimental work correlated with CHE 103.

**L104 Introduction to Modern Chemistry Laboratory II.** Continuous course; 3 hours. 1 credit. Prerequisite or co-requisite: CHE 104. Prerequisite: CHE L103. Experimental work correlated with CHE 104.

**NOTE: CHE 101, 102, L101 and L102 are prerequisites to all of the following chemistry courses.**

**301-302 Organic Chemistry.** Continuous course; 3 lecture hours. 3-3 credits. A comprehensive survey of the aliphatic and aromatic series of compounds.

**L301 Organic Chemistry Laboratory I.** Continuous course; 4 hours. 1 credit. Prerequisite or co-requisite: CHE 301. Experimental work correlated with CHE 301.

**L302 Organic Chemistry Laboratory II.** Continuous course; 4 hours. 1 credit. Prerequisite: CHE L301. Prerequisite or co-requisite: CHE 302. Experimental work correlated with CHE 302.

**303 Physical Chemistry.** Semester course; 3 lecture hours. 3 credits. Prerequisites: PHY 201-202 or 207, 208 and MAT 200-201. Ideal and non-ideal gases, thermodynamics, free energy, and chemical equilibrium.

**304 Physical Chemistry.** Semester course; 3 lecture hours. 3 credits. Prerequisite: CHE 303 or 305 with permission of instructor. Kinetics, solution thermodynamics, heterogeneous equilibria, electrochemistry, and introductory biophysical chemistry.

**L304 Physical Chemistry Laboratory.** Semester course; 6 laboratory hours. 2 credits. Prerequisite: CHE 305 or 309. Corequisite: CHE 304.

**305 Introduction to Physical Chemistry.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: MAT 200 or 204. Corequisite: PHY 201 or 207. Concepts and principles of physical chemistry as related to the fields of biology, medicine, and veterinary science. (Not for chemistry majors.)

**309 Quantitative Analysis.** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisites: CHE 101-102 and L101, L102 or equivalent and MAT 101 or equivalent. Theory and practice of gravimetric, volumetric, and instrumental analysis techniques, treatment of multiple equilibria in aqueous solutions.

**403 Qualitative Organic Chemistry.** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisites: CHE 301-302 and L301-L302. Theory, problems, and laboratory practice of systematic qualitative analysis for organic compounds with emphasis on modern spectrometric and chromatographic methods.

**404 Advanced Organic Chemistry.** Semester course; 3 lecture hours. 3 credits. Prerequisite: CHE 301-302, L301-L302, and 303, 304 or permission of instructor. An extensive treatment of certain topics of organic chemistry with emphasis on mechanism of reactions, structure, and stereochemistry.

**406 Advanced Inorganic Chemistry.** Semester course; 3 lecture hours. 3 credits. Prerequisite: CHE 303 and 304. Advanced treatment of atomic structure, chemical bonding, properties of the elements, metal complexes, acid-base theory, and related subjects.

**409 Advanced Analytical Chemistry.** Semester course; 2 lecture and 6 laboratory hours. 4 credits. Prerequisite: CHE 303, 304, and 309. Theory and practice of modern spectrophotometric, electroanalytical, and chromatographic techniques. Atomic absorption, selective ion electrodes, and uses of operational amplifiers.

**410 Atomic and Molecular Structure.** Semester course; 3 lecture hours. 3 credits. Prerequisites: MAT 301 and PHY 208. Survey of the pertinent aspects of quantum mechanics. Line spectra, atomic structure, and molecular bonding.

**495 Topics in Chemistry.** Semester course; variable credit, 1-6 credits per semester; maximum total credit for all topics courses 9 credits. An in depth study of a selected topic in chemistry. (See schedule of classes for specific topic(s) and prerequisites.)

**497 Independent Study.** Semester course; variable credit, maximum of 4 credits per semester; maximum total for all independent study courses 8 credits. Open generally to students of junior or senior standing who have acquired at least 12 credits in the departmental discipline. Determination of the amount of credit and permission of instructor and department chairman must be procured prior to registration for the course. Investigation of chemical problems through literature search and experimentation.

## COURSES IN CHINESE (CHI)

**101-102 Elementary Chinese.** Continuous course; 3 lecture and 2 laboratory hours. 4-4 credits. Elementary grammar, reading, and oral drill.

**201-202 Intermediate Chinese.** Continuous course; 3 lecture hours. 3-3 credits. Rapid review of the essentials of grammar, conversation, and readings from Chinese literature.

## COURSES IN COMPARATIVE AND GENERAL LITERATURE (CML)

**485 Seminar in Comparative Literature.** Semester course; 3 lecture hours; 3 credits. Maximum total of 6 credits in all topics courses. Prerequisites: ENG 201-202 or its equivalent, ENG 350, and 12 additional upper-division credits in English, foreign literature, or foreign literature in English translation. An examination of particular comparative studies relating directly to the student's concentration within comparative literature, culminating in the preparation of a major project or paper. Designed for comparative literature majors.

## COURSES IN COMPUTER SCIENCE (CSC)

**101 Computer Usage and Society.** Semester course; 2 lecture and 1 laboratory hour. 2 credits. Prerequisite: two years of high school mathematics. An introduction to capabilities and limitations of computers, man-machine interaction, and basic programming. The aim is to develop an appreciation for the uses of computers in our society. Applications in art, history, humanities, languages, medicine, and social sciences. Not open to mathematical sciences majors, and not recommended for anyone with prior exposure to computers.

**102 Computer Usage Project.** Semester course; 2 lecture and 1 laboratory hour. 2 credits. Prerequisites: CSC 101, satisfactory score on mathematics placement test, and permission of instructor. In addition to studying a programming language the student will work on an independent project mutually agreeable to the student and the instructor. It is expected that the project will be applicable to the student's major field of interest. Credit will not be given for both CSC 102 and CSC 201.

**201 Computer Science I.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: three years of high school mathematics and satisfactory score on the mathematics placement test. Introduction to computer concepts and programming. Emphasis will be on a programming language. Survey of computer application and organization, and characteristics of computer languages and systems.

**202 Computer Science II.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: CSC 201 or 102. Extension of development and applications of

algorithmic languages from CSC 201. Additional computer systems concepts are introduced.

**301 Introduction to Discrete Structures.** Semester course; 3 lecture hours. 3 credits. Prerequisites: CSC 201 and MAT 211. Review of set algebra, mappings, relations, algebraic structures, and directed and undirected graphs. Boolean algebra and propositional logic with applications to various areas of computer science.

**302 Numerical Calculus.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisites: MAT 201 and CSC 201. An introduction to the numerical algorithms fundamental to scientific computer work. The algorithmic approach and the efficient use of the computer are emphasized.

**311 Computer Science III.** Semester course; 3 lecture hours. 3 credits. Prerequisite: CSC 202 or permission of instructor. An introduction to macro-assemblers, computer architecture, and related topics.

**312 Concepts of Programming and Systems.** Semester course; 3 lecture hours. 3 credits. Prerequisites: CSC 202 and 311 or permission of instructor. Topics include Job Control Language, files and peripheral devices, structured programming, program correctness, data representations and data structures, programming languages, and their properties, loaders, compilers, and operating systems.

**401 Data Structures.** Semester course; 3 lecture hours. 3 credits. Prerequisites: CSC 202, 301, and 311. Basic concepts of data, list structures, strings, and arrays. Representation of trees and graphs. Storage systems and methods of storage allocation and collection. Multi-linked structures. Symbol tables, search techniques, and sorting techniques. Formal specification of data structures.

**403 Programming Languages.** Semester course; 3 lecture hours. 3 credits. Prerequisites: CSC 202, 301, and 311. Formal definition of programming languages including specifications of syntax and semantics. Precedence, infix, prefix, and postfix notation. Global properties of algorithmic languages. Sub-routines, co-routines, and tasks. List processing, string manipulation, data description, and simulation languages. Run-time representation of program and data structures.

**404 Compiler Construction.** Semester course; 3 lecture hours. 3 credits. Prerequisites: CSC 401 and 403. Review of program language structures, translation, loading execution, and storage allocation. Compilation of simple expressions and statements. Organization of a compiler. Use of compiler writing languages and bootstrapping.

**405 Computer Organization.** Semester course; 3 lecture hours. 3 credits. Prerequisites: CSC 311 and 312. Basic digital circuits. Boolean algebra and combinatorial logic, data representation and transfer, and digital arithmetic. Digital storage and accessing, control functions, input-output facilities, system organization, and reliability. Description and simulation techniques. Features needed for multi-programming,

multi-processing, and realtime systems. Other advanced topics and alternate organizations. See also MAT 415-416 Numerical Analysis.

## COURSES IN ECONOMICS (ECO)

See page 172 of the School of Business section of this bulletin for course descriptions.

## COURSES IN ENGLISH (ENG)

**001 Review of English Fundamentals.** Semester course; 3 lecture hours. No credits. (Offered only in the Evening College.) An intensive review of the fundamentals of English grammar, usage, punctuation, mechanics, and spelling; paragraph and theme development; regular exercises and compositions. (Especially recommended for those whose previous preparation in English has been inadequate or for those who wish to improve their writing and speaking. May be taken simultaneously with ENG 101.)

**100 Fundamentals of English Composition.** Semester course; 3 lecture hours. 2 credits. (This course is not equivalent to English 101-102, and these credits may not be used to satisfy the School of Arts and Sciences requirement in English.) A study of English grammar, usage, punctuation, mechanics, and spelling to help students compose sentences which are clear, varied, and effective. Some attention will also be given to methods of organizing and developing paragraphs. (This course is recommended for students who have not previously studied grammar and composition extensively and will be required as a prerequisite to English 101-102 for those students whose placement scores indicate inadequate preparation in grammar and composition.)

**101-102 Composition and Rhetoric.** Continuous course; 3 lecture hours. 3-3 credits. First semester: fundamentals of effective writing and critical analysis. Second semester: more complex writing and analysis—principles of sound critical thinking, the uses of research and responsible use of evidence. Credit for 101 may be granted through achievement of an appropriate score on the English Placement Test.

**NOTE: ENG 101-102 is prerequisite to all the following English courses.**

**201, 202 Western World Literature.** Semester courses; 3 lecture hours. 3, 3 credits. A general study of Western world literature, including English and American literature. First semester: Homer to Shakespeare. Second semester: Milton to Faulkner.

**203, 204 English Literature.** Semester courses; 3 lecture hours. 3, 3 credits. A survey of the literature of England with collateral readings, discussions, and reports. First semester: *Beowulf* to Johnson. Second semester: Wordsworth to Auden.

**205, 206 American Literature.** Semester courses; 3 lecture hours. 3, 3 credits. A survey of the literature of

the United States. First semester: before 1855. Second semester: since 1855.

**211, 212/Art History 211, 212 Western World Art and Literature.** Semester courses; 3 lecture hours. 3, 3 credits. A general survey of the form and content of Western world art and literature with special emphasis on the relationships between visual and literary works. First semester: ancient Greece through the sixteenth century. Second semester: seventeenth century to the present.

**215 Introduction to Literary Genres.** Semester course; 3 lecture hours. 3 credits. A study of the major literary genres (e.g., poetry, fiction, drama), designed to develop an understanding and appreciation of literature.

**295 Topics in Language or Literature.** Semester course; 3 lecture hours. 3 credits. Maximum six credits in all topics courses at the 200 level. An in-depth study of a selected topic or genre in language or literature, or study of any non-western literatures. See Schedule of Classes for specific topic to be offered each semester.

**300 Individualized Writing Workshop.** Semester course; 3 workshop hours. 1-3 credits; 5, 10, or 15 weeks. Prerequisite: ENG 101-102. An individualized, variable-credit course covering organization, writing, and revision skills useful in upper-level university classes and on-the-job situations. Treats such formats as critical evaluations, case studies, field observations, and research reports. May not be used to satisfy the School of Arts and Sciences requirement in English.

**302 Legal Writing.** Semester course. 3 lecture hours. 3 credits. Intensive practice in writing on subjects related to law or legal problems. Emphasis on organization, development, logical flow, and clarity of style. May not be used to satisfy the School of Arts and Sciences requirement in English.

**304 Advanced Composition.** Semester course; 3 lecture hours. 3 credits. Review of rhetoric and the forms of discourse with emphasis on exposition. May not be used to satisfy the School of Arts and Sciences requirement in English.

**305, 306 Creative Writing.** Semester courses; 3 workshop hours. 3, 3 credits. A workshop for studying poetry, fiction, or drama written by imaginative students who have not produced a portfolio of finished creative work. Although students will be expected to present a collection of their work at the end of the first semester, the quality is not as important as the attempt to understand craft. The second semester allows the writer to concentrate in the genre which interests him most and to rework the portfolio produced during the first semester. May not be used to satisfy the School of Arts and Sciences requirement in English.

**307/Education 307 Teaching Writing Skills.** Semester course. 3 lecture hours. 3 credits. A study of the methods for teaching writing to students in middle and secondary schools. Students will learn to teach the basic skills of grammar and mechanics as well as the

more advanced skills of planning, writing, and revising papers. They will also practice these skills in their own writing. May not count toward Arts and Sciences English elective requirement.

**311 Commonwealth and Third World Literatures.** Semester course; 3 lecture hours. 3 credits. A study of the major writers of Africa, Australia, New Zealand, the West Indies, Canada, and India within the contexts of European literature, traditional literatures, and the emerging Third World consciousness.

**313 Southern Literature.** Semester course; 3 lecture hours. 3 credits. An intensive survey of the literature of the South with special attention to the works of Poe, Kennedy, Page, Cabell, Glasgow, Caldwell, Welty, McCullers, and Faulkner.

**314/Afro-American Studies 314 Black American Writers.** Semester course; 3 lecture hours. 3 credits. An examination of the contribution of black writers in America from colonial times to the present.

**315 The Modern Novel.** Semester course; 3 lecture hours. 3 credits. An examination of the novel, chiefly British and European, in the 20th century.

**316 Modern Poetry.** Semester course; 3 lecture hours. 3 credits. A study of British and American poetry in the first half of the twentieth century.

**317 Modern Drama.** Semester course; 3 lecture hours. 3 credits. A study of the development of the drama since Ibsen, particularly in England and America.

**318 Contemporary Poetry.** Semester course; 3 lecture hours. 3 credits. A study of British and American poetry from approximately 1950 to the present for the purpose of determining the aesthetic and thematic concerns of contemporary poets.

**319 English Literature, 1660-1744.** Semester course; 3 lecture hours. 3 credits. The age of Dryden and Pope; English nondramatic literature of the Restoration and early eighteenth century with special attention to Dryden, Defoe, Addison, Steele, Swift, Pope, and Gay.

**320 English Literature 1744-1798.** Semester course; 3 lecture hours. 3 credits. The age of Johnson, Boswell, and Goldsmith; an intensive survey of the literature of the second half of the eighteenth century in England.

**321 Romantic Literature.** Semester course; 3 lecture hours. 3 credits. An intensive survey of the literature of Romanticism in England from 1798 to 1837, with special attention to Wordsworth, Coleridge, Byron, Shelley, and Keats.

**322 Victorian Poetry.** Semester course; 3 lecture hours. 3 credits. An intensive survey of the poetry of Victorian England, with special attention to Tennyson, Browning, Arnold, Rossetti, Swinburne, Morris, Hopkins, and Yeats.

**327/Business 327 Business and Technical Report Writing.** Semester course; 3 lecture hours. 3 credits. Development of critical writing skills used in business,

science, technology, and government, including instructions descriptions, process explanations, reports, manuals, and proposals. The course will include such topics as communication theory, technical style, illustrations, formats for proposals, reports, and manuals.

**335 The Glories of the English Renaissance.** Semester course; 3 lecture hours. 3 credits. An introduction to some of the most exciting works of a dynamic age, providing an understanding not only of the achievements of Shakespeare, Spenser, and Milton, but also of the literary period from which they emerged.

**350 Approaches to Literature.** Semester course; 3 lecture hours. 3 credits. The study and application of various critical approaches—historical, sociocultural psychological, archetypal, and formalist—used in analyzing literary works.

**361/Religious Studies 361 The Bible As Literature.** Semester course; 3 lecture hours. 3 credits. Literary aspects of the Bible will be considered. Also attention will be given to the history of the English Bible.

**363/Afro-American Studies 363 African Literature.** Semester course; 3 lecture hours. 3 credits. The study of African oral performances and written literatures in English with emphasis on the literature of West and South Africa.

**365/Afro-American Studies 365 Caribbean Literature.** Semester course; 3 lecture hours. 3 credits. A survey of West Indian writings. Attention will be given to African, European, and Amerindian influences, as well as to the emergence of a West Indian literary tradition.

**367 Eastern Thought in Western Literature.** Semester course; 3 lecture hours. 3 credits. An exploration of the influence of Eastern thought on Western writers, with emphasis on the period from the nineteenth century to the present.

**371 American Literature, Colonial and Federal.** Semester course; 3 lecture hours. 3 credits. A study of the most important writings from the founding of the first colonies to the establishment of the federal government with some concentration on Taylor, Edwards, and Franklin.

**372 American Literature, the American Renaissance.** Semester course; 3 lecture hours. 3 credits. A study of the most important writings of the Romantics in the 19th century, with some concentration on Poe, Emerson, Thoreau, Hawthorne, Melville, and Whitman.

**373 American Literature, Realism and Naturalism.** Semester course; 3 lecture hours. 3 credits. A study of the most important writings from the end of the Civil War to the coming of World War I, with some concentration on Clemens, Howells, James, and Stephen Crane.

**374 American Literature, Early Twentieth Century.** Semester course; 3 lecture hours. 3 credits. A study of the most important writings between World War I and World War II, with some concentration on Frost, Eliot, Steinbeck, Hemingway, and Faulkner.

**375 American Literature, Contemporary.** Semester course; 3 lecture hours. 3 credits. A study of the most important writings since World War II, with some attention to such authors as Baldwin, Bellow, Ellison, Lowell, Mailer, Malamud, Updike, and Wilbur.

**381 Fiction Into Film.** Semester course; 2 lecture and 1 laboratory hour. 2 or 3 credits, 10 or 15 weeks, decided in advance. A study of the translation of literature into film. Topical approaches vary from semester to semester. Consideration is given to the literature in its original form and to the methods of translating it into film. \$10 laboratory fee.

**386 Introduction to Folklore.** Semester course; 3 lecture hours. 3 credits. A survey of the basic forms of folklore including proverbs, riddles, ballads, folktales, legends, myths, and games. The survey will also include approaches to collecting material and examining its literary, social, and historical significance.

**395 Topics in Literature.** Semester course; 3 lecture hours. 3 credits; maximum 12 credits in all topic courses at the upper-division level. Prerequisite: junior standing. An in depth study of a literary genre, an aesthetic or cultural theme in literature, or a major writer in English or American literature. See schedule of classes for specific topic to be offered each semester.

**401 Shakespeare.** Semester course; 3 lecture hours. 3 credits. A study of representative comedies, histories, and tragedies.

**402 Chaucer.** Semester course; 3 lecture hours. 3 credits. A study of *The Canterbury Tales* and *Troilus and Criseyde*, with some attention to the lesser works.

**403 Milton.** Semester course; 3 lecture hours. 3 credits. A study of *Paradise Lost*, *Paradise Regained*, and *Samson Agonistes*, with some attention to the minor poems and selected prose.

**407 Medieval Epic and Romance.** Semester course; 3 lecture hours. 3 credits. A study of the vernacular epic and the romance in England and on the continent prior to 1500.

**414 The American Novel.** Semester course; 3 lecture hours. 3 credits. A study of the American novel from 1789 to the present, with particular emphasis on Cooper, Hawthorne, Melville, Twain, Howells, James, Dreiser, Fitzgerald, Hemingway, and Faulkner.

**415 English Novel, Eighteenth Century.** Semester course; 3 lecture hours. 3 credits. A study of the English novel from its beginnings through Jane Austen.

**416 English Novel, Nineteenth Century.** Semester course; 3 lecture hours. 3 credits. A study of the English novel from Scott through Hardy.

**418 Intellectual Controversies in Victorian Culture.** Semester course; 3 lecture hours. 3 credits. A study of the nature of art, faith and doubt, political belief, the theory of progress, evolution, the image of women, and other controversial issues, first expressed in the prose of such figures as Arnold, Pater, Huxley, Carlyle, Darwin, and Ruskin.



**421, 422 Comparative Literature.** Semester courses; 3 lecture hours. 3, 3 credits. A comparative study of the forms and contents of the literature of Western civilization in translation with some attention to the dominant influence on and interrelationships between English and continental literatures. First semester: ancient, medieval, and renaissance. Second semester: neo-classical, romantic, and modern.

**423 English Drama, 900-1642.** Semester course; 3 lecture hours. 3 credits. A study of the origin of the English drama and its development until the closing of the theaters in 1642, exclusive of Shakespeare.

**424 English Drama, 1660-1800.** Semester course; 3 lecture hours. 3 credits. A study of the English drama of the Restoration and eighteenth century from Dryden and Congreve to Sheridan and Goldsmith.

**426-427/Theatre 426-427 Playwriting.** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: ENG 317 or permission of instructor. A practical introduction to the creation of original scripts for theatre, television, and/or motion pictures. Works may not be used to satisfy the School of Arts and Sciences requirement in English.

**428 Children's Literature.** See EDU 428

**429 Form and Theory of Poetry.** Semester course; 3 lecture hours. 3 credits. A study of the poetic process with the aim of showing readers how poems are created and come to have meaning, and giving readers the language and methods of critical analysis and synthesis.

**430 Form and Theory of Fiction.** Semester course; 3 lecture hours. 3 credits. A study of the process of fiction writing with the aim of showing readers how novels and stories are created and come to have meaning, and giving readers the language and methods of critical analysis and synthesis.

**431 Literary Criticism.** Semester course; 3 lecture hours. 3 credits. A study of the fundamental concepts involved in the practice of criticism. Some attention is given to the historical development of criticism, but the primary focus is on its methods and aims.

**433 Literature for Adolescents.** See EDU 433

**435, 436 Creative Writing: Poetry.** Semester courses; 3 workshop hours. 3, 3 credits. Prerequisite: permission of instructor. Study of the craft of writing, with instruction and guidance toward constructive self-criticism. Workshop members will be expected to produce a substantial volume of quality work and to become proficient in critical analysis in order to evaluate and articulate the strength of their own poetry. May not be used to satisfy the School of Arts and Sciences requirement in English.

**437, 438 Creative Writing: Fiction.** Semester courses; 3 workshop hours. 3, 3 credits. Prerequisite: permission of instructor. Study of the craft of fiction writing, with instruction and guidance toward constructive self-criticism. Workshop members will be expected to produce a substantial volume of short stories or portion of a novel and to become proficient in the critical

analysis of fiction in order to evaluate and articulate the strength of their own work. May not be used to satisfy the School of Arts and Sciences requirement in English.

**441 Renaissance Literature.** Semester course; 3 lecture hours. 3 credits. A survey of the non-dramatic literature of the sixteenth century in England from Skelton to Spenser.

**442 Seventeenth Century Literature.** Semester course; 3 lecture hours. 3 credits. A study of non-dramatic poetry and prose in England from 1600 to 1660.

**446/Linguistics 446 Nonstandard Urban Dialects.** Semester course; 3 lecture hours. 3 credits. An examination of the language of the inner city and the pedagogical problems involved in teaching Standard English. Covers such topics as the phonology, syntax, and rhetoric of inner city nonstandard dialects. Primarily for prospective teachers.

**448/Linguistics 448 Introduction to Linguistics: Phonology.** Semester course; 3 lecture hours. 3 credits. An introduction to methods of language analysis, emphasizing phonetics and phonemics. May not be used to satisfy the School of Arts and Sciences requirement in English.

**449/Linguistics 449 Introduction to Linguistics: Morphology and Syntax.** Semester course; 3 lecture hours. 3 credits. An introduction to methods of language analysis, emphasizing units of meaning and their arrangements. May not be used to satisfy the School of Arts and Sciences requirement in English.

**450/Linguistics 450 Transformational Grammar.** Semester course; 3 lecture hours. 3 credits. Study of transformational theory with some attention to completing formal syntactic theories. May not be used to satisfy the School of Arts and Sciences requirement in English.

**451/Linguistics 451 History of the English Language.** Semester course; 3 lecture hours. 3 credits. The historical development of the English language; etymology, morphology, orthography, and semantics.

**471 Minority Voice in American Literature.** Semester course; 3 lecture hours. 3 credits. Survey of American ethnic writing with special attention to the contributions of authors of North American Indian, African, Hispanic, Oriental, and Jewish descent.

**475 Modernism I: Theory and Practice.** Semester course; 3 lecture hours. 3 credits. A study of the aesthetic theories and practice of modern British or European authors identified with aesthetic movements.

**476 Modernism II: Motifs.** Semester course; 3 lecture hours. 3 credits. A study of themes and their artistic expression through plot, structure, character, imagery, and language in modern British or European literature.

**495 Topics in Literature.** Semester course; 3 lecture hours. 3 credits; maximum 12 credits in all topics courses at the upper-division level. An in depth study of a selected literary topic or genre or of one or two major



writings in English or American literature. See schedule of classes for specific topic to be offered each semester.

**497 Independent Study.** Semester course; variable credit, maximum 3 credits per semester; maximum total for all independent study courses 9 credits. Open generally only to students of junior or senior standing who have acquired at least 12 hours of English (including freshman composition). Determination of the amount of credit and permission of instructor and department chairman must be procured prior to registration for the course. A course designed to give students an opportunity to become involved in independent study in a literary or linguistic area or subject in which they have an interest.

## COURSES IN EUROPEAN CULTURES (EUC)

**305/Humanities 305 Aspects of French Culture.** Semester course; 3 lecture hours. 3 credits. A broad interdisciplinary approach to an understanding of French culture: language and literature, art, architecture, music and dance, history, love traditions, philosophy, anthropology, and contemporary popular culture. Lectures in English by visiting scholars and experts. (May not be taken for foreign language credit.)

**306/Humanities 306 Aspects of Spanish Culture.** Semester course; 3 lecture hours. 3 credits. A broad interdisciplinary approach to an understanding of Spanish culture: language and literature, art, architecture, music and dance, history, philosophy, anthropology, and contemporary popular culture. Lectures in English by visiting scholars and experts (May not be taken for foreign language credit.)

**307/Humanities 307 Aspects of German Culture.** Semester course; 3 lecture hours. 3 credits. A broad interdisciplinary approach to an understanding of German culture: language and literature, art, architecture, music, history, philosophy, anthropology, and contemporary popular culture. Lectures in English by visiting scholars and experts. (May not be taken for foreign language credit.)

## COURSES IN FOREIGN LITERATURE IN ENGLISH TRANSLATION (FLT)

**301 Early Chinese Literature.** Semester course; 3 lecture hours. 3 credits. The *Book of Songs*; the selected teachings of Confucius; the Taoist tales; the poetry of the Tang and Sung Dynasties; the Chinese philosophical mind. (This course will not satisfy foreign language requirements. No knowledge of Chinese is required. All work is done in English.)

**302 Revolution and Erotic Life in Chinese Literature.** Semester course; 3 lecture hours. 3 credits. The problems of rebellion and revolution; an examination of Chinese erotic life; short stories; some contemporary literature from Red China and Taiwan. (This course will not satisfy foreign language requirements. No knowl-

edge of Chinese is required. All work is done in English.)

**311 The Humanist Quest in French Literature.** Semester course; 3 lecture hours. 3 credits. A study of the developing concept of humanism in French literature from the Middle Ages to the end of the eighteenth century. (This course will not satisfy foreign language requirements. No knowledge of French is required. All work is done in English.)

**312 Revolt and Renewal in Modern French Literature.** Semester course; 3 lecture hours. 3 credits. A study of the twin themes of revolt and renewal in French literature of the 19th and 20th centuries. (This course will not satisfy foreign language requirements. No knowledge of French is required. All work is done in English.)

**321 The Hero in Early German Literature.** Semester course; 3 lecture hours. 3 credits. The development of the hero in German literature from the High Middle Ages to the Romantic period. Reading and discussion of representative works such as the *Nibelungenlied*, *Simplicissimus*, selected works of Lessing and Schiller, and Goethe's *Faust*. (This course will not satisfy foreign language requirements. No knowledge of German is required. All work is done in English.)

**322 Man in Crisis in German Literature.** Semester course; 3 lecture hours. 3 credits. Man's alienation in the modern German novel from the Romantic period to the present. Reading of representative works by Thomas Mann, Hermann Hesse, Bertolt Brecht, Gunter Grass, Heinrich Boll, and others. (This course will not satisfy foreign language requirements. No knowledge of German is required. All work is done in English.)

**331 The Hero in Greek Epic, Tragedy, and Comedy.** Semester course; 3 lecture hours. 3 credits. The most important Greek tragedies, the epic, and selected comedies. (This course will not satisfy foreign language requirements. No knowledge of Greek is required. All work is done in English.)

**332 Individual and Cosmos in Greek Literature.** Semester course; 3 lecture hours. 3 credits. The origins of Western culture in the Greek lyric, philosophy, political thought, and sources of history. (This course will not satisfy foreign language requirements. No knowledge of Greek is required. All work is done in English.)

**341 Realism in Russian Literature.** Semester course; 3 lecture hours. 3 credits. The rise of Russian national consciousness in the modern world; alienation as a philosophy; the anti-hero as described by Pushkin, Lermontov, Gogol, and Dostoevsky. (This course will not satisfy foreign language requirements. No knowledge of Russian is required. All work is done in English.)

**342 Individual and Society in Russian Literature.** Semester course; 3 lecture hours. 3 credits. The antagonism between the individual and society as seen

by Tolstoy, Turgenev, Chekhov, Gorky, Pasternak, and some contemporary writers. (This course will not satisfy foreign language requirements. No knowledge of Russian is required. All work is done in English.)

**351 National Character in Spanish Literature.** Semester course; 3 lecture hours. 3 credits. The evolution of national identity and ideals from the *Poem of the Cid* through Golden Age drama to Cervantes. (This course will not satisfy foreign language requirements. No knowledge of Spanish is required. All work is done in English.)

**352 Crisis and Rebirth in Modern Spanish Literature.** Semester course; 3 lecture hours. 3 credits. The challenges of the nineteenth and twentieth centuries to national and personal identity from Galdos through Lorca. (This course will not satisfy foreign language requirements. No knowledge of Spanish is required. All work is done in English.)

**361 Protest and Revolt in Latin Literature.** Semester course; 3 lecture hours. 3 credits. The Roman struggle to achieve world dominance by war and cultural interaction. Readings include Livy's *History*, Cicero's orations, and Vergil's *Aeneid*. (This course will not satisfy foreign language requirements. No knowledge of Latin is required. All work is done in English.)

**362 Myth and Satire in Latin Literature.** Semester course; 3 lecture hours. 3 credits. The inevitable struggle of Rome to deal with its internal problems. Readings include Catullus' poems, Martial's epigrams, Juvenal's satires, and Ovid's *Metamorphoses*. (This course will not satisfy foreign language requirements. No knowledge of Latin is required. All work is done in English.)

**371 Latin American Literature of the Colonial Period.** Semester course; 3 lecture hours. 3 credits. A survey of Latin American literature from the Spanish Conquest up to the end of the 19th century. (This course will not satisfy language requirements. No knowledge of Spanish is required. All work is done in English.)

**372 The Search for National Identity in Latin American Literature.** Semester course; 3 lecture hours. 3 credits. From Modernism to the contemporary period, including Latin America's three Nobel Prize-winning authors, and the magic realism movement. (This course will not satisfy language requirements. No knowledge of Spanish is required. All work is done in English.)

**395 Topics in Foreign Literature in English Translation.** Semester course; 3 lecture hours. 3 credits. May be repeated with different topics for a total of 12 credits. An in depth study of selected topics in a foreign literature. (This course will not satisfy foreign language requirements. No knowledge of a foreign language is required. All work is done in English.)

## COURSES IN FRENCH (FRE)

**101-102 Elementary French.** Continuous course; 3 lecture and 2 laboratory hours. 4-4 credits. Elementary grammar, reading, and oral drill.

**151-152 French for Business Majors.** Continuous course; 3 lecture hours. 3-3 credits. A study of business French. (Completion of this course does not qualify a student to take intermediate language without passing the Language Placement Test.)

**201-202 Intermediate French.** Continuous course; 3 lecture and 1 laboratory hour. 3-3 credits. Rapid review of the essentials of grammar; conversation, readings in French literature.

**301, 302 Survey of Literature.** Semester courses; 3 lecture hours. 3, 3 credits. Conducted in French. Prerequisite: FRE 201-202 or the equivalent. First semester: through the eighteenth century. Second semester: nineteenth and twentieth centuries.

**303, 304 Advanced Grammar and Translation.** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: FRE 201-202 or the equivalent. A systematic review of French grammar with emphasis on the elements of style and vocabulary building; translation of English stylists.

**305 French Conversation and Civilization.** Semester course; 3 lecture hours. 3 credits. Prerequisite: FRE 201-202 or the equivalent. Practice in the spoken language with emphasis on discussions dealing with French civilization and culture. Taught in French.

**306 Introduction to the History of the French Language.** Semester course; 3 lecture hours. 3 credits. Prerequisite: permission of instructor. A history of the phonology and grammar of French from the origins to the present with analysis and study of appropriate documents to illustrate these developments. The phonetic alphabet, dictation, and pronunciation will also be stressed.

**316/Linguistics 316 French Linguistics.** Semester course; 3 lecture hours. 3 credits. A study of French phonetics with oral practice in pronunciation; an introduction to the history of the French language, and a review of linguistic problems encountered in the teaching of French.

**NOTE: FRE 301, 302 or 303, 304 are prerequisite to all of the following courses.**

**411 The Middle Ages.** Semester course; 3 lecture hours. 3 credits. Reading and discussion of the following: *La Chanson de Roland*, Chretien de Troyes, *Erec et Enide*; *Aucassin et Nicolette*; Villon.

**412 The Sixteenth Century.** Semester course; 3 lecture hours. 3 credits. A study of the Rhetoriciens; Rabelais; the Court of Francis I; the Pleiade; selections from Montaigne's *Essais*; the Baroque poets.

**413, 414 The Seventeenth Century.** Semester courses; 3 lecture hours. 3, 3 credits. First semester: readings from the Baroque and Classical prose and poetry of the principal authors of the seventeenth century; Pascal, La Fontaine, Boileau, La Rochefoucauld, La Bruyere. Second semester: dramatic literature, emphasizing the works of Corneille, Moliere, and Racine.

**416 The Eighteenth Century.** Semester course; 3

lecture hours. 3 credits. Principal movements in the various genres; the "philosophes"; the growth of liberalism as reflected in the literature of Montesquieu, Voltaire, Diderot, and Rousseau. Readings from Marivaux, Prevost, and Vauvenargues.

**417 The Nineteenth Century.** Semester course; 3 lecture hours. 3 credits. Pre-Romanticism: Mme de Stael, Rousseau, and Chateaubriand. The Romantic Movement; Lamartine, Hugo, Vigny, Musset, Balzac, and Stendhal. The age of Positivism and Realism: Flaubert; Naturalism, and Symbolism.

**420 The Twentieth Century.** Semester course; 3 lecture hours. 3 credits. Readings and discussion of the novel from Proust to the "nouveau roman", of the drama from Surrealism to Antitheatre, and of poetry from Symbolism to contemporary poets.

**495 Topics in French.** Semester course; 3 lecture hours. 3 credits. May be repeated with different topics for a total of 6 credits. An in depth study of selected topics in French. See schedule of classes for specific topic to be offered each semester.

**497 Independent Study.** Semester course; variable credit, maximum 3 credits per semester; maximum total for all independent study courses in French 6 credits. Open generally only to students of junior or senior standing who have six credits of upper level French courses and/or have a demonstrated competency in the language. Determination of course content and permission of the instructor must be obtained prior to registration for the course. A course designed to give students an opportunity to become involved in independent study in a literary or linguistic area or subject in which they have an interest.

## COURSES IN GEOGRAPHY (GEO)

**131 The Geography of \_\_\_\_\_.** Semester course; 1 lecture hour. 1 credit. Covering a particular nation or restricted world region, each course will emphasize the area's present-day level of development and the problems affecting the area's stability and growth.

**195 Topics in Geography.** Semester course; 1-3 lecture hours. 1-3 credits. 15 contact hours per credit. May be repeated with different topics for a maximum of 3 credits. An introductory course in a selected topic in geography. See schedule of classes for specific topics to be offered each semester.

**203, 204 Physical Geography.** Semester courses; 3 lecture hours. 3, 3 credits. Analysis of the interrelated systems of the earth. First semester: the earth in space, atmosphere, climates, natural vegetation, soils. Second semester: landforms, hydrology, oceanography. Physical Geography Laboratory L203, L204 are optional.

**L203, L204 Physical Geography Laboratory.** Semester courses; 3 laboratory hours. 1, 1 credits. Prerequisite or co-requisite: GEO 203 for L203, GEO 204 for L204. Optional. First semester: the earth in space, map-reading, climates, vegetation, soils. Second semester: landforms, geologic maps, hydrology, oceanography.

**207, 208 World Regions.** Semester courses; 3 lecture hours. 3, 3 credits. An examination of the various regions of the earth, including land forms, climate, resources, peoples, agricultural, and urban conditions. First semester: Anglo-America, Latin America, Western Europe, Eastern Europe, USSR. Second semester: Middle East and North Africa, Africa (south of the Sahara), Indian Sub-continent, China, Japan, South-East Asia, Oceania.

**311, 312 History of Human Settlement.** Semester courses; 3 lecture hours. 3, 3 credits. A cultural geography of man's diffusion over the earth, agricultural and urban systems, exploration, migration and colonization, and changing attitudes toward the environment. First semester: before 1750. Second semester: during and since the Industrial Revolution.

**322 World Political Geography.** Semester course; 3 lecture hours. 3 credits. A study of geographic factors in world power and international affairs, including such topics as resources, national unity, boundaries, etc. Specific areas of international tension may also be considered.

**333/Afro-American Studies 333 Geography of Africa.** Semester course; 3 lecture hours. 3 credits. A study of the land forms, climate, peoples, boundaries, trade, and cultural groupings of the African continent.

**334 Regional Geography of \_\_\_\_\_.** Semester course; 3 lecture hours. 3 credits. A study of the land forms, climate, resources, peoples, agricultural, and urban conditions in a specific region such as North America, Europe, Latin America, the Middle East and India, the USSR, and Eastern Europe. See schedule of classes for specific region to be studied each semester.

**395 Topics in Geography.** Semester course; 3 lecture hours. 3 credits. May be repeated with different topics to a maximum of 9 credits. An in depth study of a selected topic in geography. See schedule of classes for specific topics to be offered each semester.

**497 Independent Study.** Semester course; variable credit, 2-4 credits per semester; maximum total of 6 credits. Open generally only to students of junior or senior standing. Determination of the amount of credit and permission of instructor and department chairman must be obtained prior to registration for the course. To be eligible, students must have 12 credits in geography or in geography and geology.

## COURSES IN GERMAN (GER)

**101-102 Elementary German.** Continuous course; 3 lecture and 2 laboratory hours. 4-4 credits. Elementary grammar, reading, and oral drill.

**151-152 German for Business Majors.** Continuous course; 3 lecture hours. 3-3 credits. A study of business German. (Completion of this course does not qualify a student to take regular intermediate language without passing the language placement test.)

**201-202 Intermediate German.** Continuous course; 3 lecture and 1 laboratory hour. 3-3 credits. Rapid review

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of the essentials of grammar; conversation, readings in German literature.

**301, 302 Survey of Literature.** Semester courses; 3 lecture hours. 3, 3 credits. Conducted in German. Prerequisite: GER 201-202 or the equivalent. First semester: German Romanticism through the literature of the first half of the nineteenth century. Second semester: Contemporary German literature.

**303, 304 Advanced Grammar and Translation.** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: GER 201-202 or the equivalent. A systematic review of German grammar with emphasis on the elements of style and vocabulary building; translation of English stylists.

**305 Conversation and Civilization.** Semester course; 3 lecture hours. 3 credits. Prerequisite: GER 201-202 or the equivalent. Practice in the spoken language with emphasis on discussions dealing with German civilization. Taught in German.

**311 German Through the Media.** Semester course; 3 lecture hours. 3 credits. Prerequisite: GER 201-202 or the equivalent. A course designed to develop language proficiency by using material available through the various media: newspapers, magazines, films, slides, radio broadcasts.

**NOTE: GER 301, 302, or 303, 304 are prerequisites to all of the following courses.**

**351 Literature of the Late Eighteenth Century.** Semester course; 3 lecture hours. 3 credits. Conducted in German. The major writers and genres during the period of preclassicism and *Sturm und Drang*.

**352 German Classicism.** Semester course; 3 lecture hours. 3 credits. Conducted in German. A course centuring around the works of Goethe and Schiller. Other major writers of the period will be studied to lend breadth and understanding.

**353 Literature of the 19th Century.** Semester course; 3 lecture hours. 3 credits. Conducted in German. A course covering the period of romanticism, *Biedermeier* and *Junges Deutschland*, and the periods of realism and naturalism.

**355 Literature of the Early Twentieth Century.** Semester course; 3 lecture hours. 3 credits. Conducted in German. A course dealing with the major authors of the periods of impressionism, expressionism, and *neue Sachlichkeit* during the first half of the twentieth century.

**356 Modern Literature.** Semester course; 3 lecture hours. 3 credits. Conducted in German. A course dealing with the literature of the post-war period leading up to the present.

**495 Topics in German.** Semester course; 3 lecture hours. 3 credits. May be repeated with different topics for a maximum of 6 credits. An in depth study of selected topics in German. See schedule of classes for specific topics to be offered each semester.

**497 Independent Study.** Semester course; variable credit, maximum 3 credits per semester; maximum total for all independent study courses in German 6 credits. Open generally only to students of junior or senior standing who have six credits of upper-level German courses and/or have a demonstrated competency in the language. Determination of course content and permission of the instructor must be obtained prior to registration for the course. A course designed to give students an opportunity to become involved in independent study in a literary or linguistic area or subject in which they have an interest.

## COURSES IN GREEK (GRE)

**101-102 Classical Greek.** Continuous course; 3 lecture hours. 3-3 credits. Introduction to Classical Greek, with readings in Greek and English from representative authors of the Classical period.

**201-202 Readings in Classical Greek.** Continuous course; 3 lecture hours. 3-3 credits. First semester: selections from the literature of tragedy and the lyric writings of Sophocles, Euripides, Sappho, and Archilochus. Second semester: readings of selected Golden Age works of Aeschylus and Pindar.

## COURSES IN HEALTH SCIENCES (HES)

**101 Introduction to Health Related Professions.** Semester course; 2 lecture hours. 1 credit. A study of the various health professions, their educational requirements, the duties involved, and their role in the health care team.

## COURSES IN HEBREW (HEB)

**101-102 Elementary Hebrew.** Continuous course; 3 lecture and 2 laboratory hours. 4-4 credits. Elementary grammar, reading, and oral drill.

**201-202 Intermediate Hebrew.** Continuous course; 3 lecture hours. 3-3 credits. Rapid review of the essentials of grammar; conversation, readings in Hebrew literature.

## COURSES IN HISTORY (HIS)

**101, 102 Introduction to European History.** Semester courses; 3 lecture hours. 3, 3 credits. A survey of the development of European civilization. First semester: to 16th century. Second semester: 16th century to the present.

**103, 104 Introduction to American History.** (changed from 201, 202) Semester courses; 3 lecture hours. 3, 3 credits. The history and civilization of the United States from the Age of Discovery to the present, with emphasis on the forces and processes that were major influences in the development of American institutions and ideas. First semester: through 1865. Second semester: since 1865.

**105, 106 Introduction to Third World History.** Semester courses; 3 lecture hours. 3, 3 credits. A survey of the history and civilizations of Asia, Africa, or Latin America. See schedule of classes for each semester's offerings.

**150 The World of \_\_\_\_\_.** Semester course; 3 lecture hours. 3 credits. An interpretive survey of selected historical periods utilizing various media and the perspectives of history and other disciplines. See schedule of classes for specific topic to be offered each semester. This course may not be applied toward the 30 credits of the history major.

**195 Topics in History.** Semester course; 3 lecture hours. 3 credits, maximum 6 credits. An in depth study of a selected topic of continuing historical interest. See schedule of classes for specific topics to be offered each semester.

**NOTE:** Students may take the following double-numbered courses at either the 200- or the 300-level, but may not take the same course at both levels. The level of understanding and the work required of students is more exacting at the 300-level than at the 200-level.

**200/300 Democracy and Republic in Greece and Rome.** Semester course; 3 lecture hours. 3 credits. The evolution of Greek and Roman political practices as illustrated by specific historical events and primary documents; monarchy, oligarchy, tyranny, democracy; the league-states; revolutionary movements; the Roman Republic and Empire in context of Roman law and governmental practice.

**201/301 The Age of Feudalism.** Semester course; 3 lecture hours. 3 credits. A study of the origins and development of political institutions in the feudal society of Western Europe.

**202/302 The Rise of the Nation State.** Semester course; 3 lecture hours. 3 credits. A study of the origins of the modern state, from the breakdown of feudal institutions in the mid-15th century to the end of the Thirty Years' War.

**203/303 The Age of Absolutism.** (changed from HIS 103) Semester course; 3 lecture hours. 3 credits. A study of the growth of absolute government in the era of Louis XIV and of the revolutionary challenges to absolutism mounted in Europe in the eighteenth century.

**204/304 The Age of Great Powers.** (changed from HIS 104) Semester course; 3 lecture hours. 3 credits. A study of Europe's domination by great powers since the Napoleonic era, Europe's role in world affairs, and the corresponding changes in Europe's social, economic, and political institutions in the last two centuries.

**241/341 Early America to 1789.** Semester course; 3 lecture hours. 3 credits. An examination of the development of the thirteen original colonies, the causes of the American Revolution, the birth of the First New Nation, and the creation of the United States Constitution.

**242/342 The American Republic, 1789-1865.** Semester course; 3 lecture hours. 3 credits. Analysis of the development of American political, cultural, and economic patterns and institutions from the establishment of the Federal government through the Civil War. The emergence of a unifying national character will be emphasized, along with the conflicting stresses of sectional antagonism.

**243/343 The Maturing American Nation.** Semester course; 3 lecture hours. 3 credits. The history of the United States during the period 1865-1910, with emphasis on Reconstruction, industry, labor, agrarian movements, imperialism, reforms, and World War I.

**244/344 The History of Modern America: 1920 to the Present.** Semester course; 3 lecture hours. 3 credits. Through lecture, reading, and discussion, this course will examine the history of the United States from the conclusion of World War I to the present touching upon such topics as post-war readjustments after two world wars, coping with domestic prosperity and depression, changing relationships within government and society, and challenges to the modern position of America.

**305, 306 History of France.** (changed from HIS 349, 350) Semester courses; 3 lecture hours. 3, 3 credits. First semester: history of France from Gallo-Roman times to the end of the reign of Louis XV (1774). Second semester: from Louis XVI to the present.

**307, 308 History of Germany.** (changed from HIS 347, 348) Semester courses, 3 lecture hours. 3, 3 credits. First semester: The rise of Prussia, decline of the Holy Roman Empire, and the German Confederation up to 1870. Second semester: Bismarck's Empire, the World Wars, Nazism, and post-1945 Germany.

**309, 310 History of England.** Semester courses; 3 lecture hours. 3, 3 credits. The origin, rise, and growth of Britain. Emphasis upon the development of English political ideas and institutions, and the significance of Britain in world affairs. First semester: earliest records to the Restoration. Second semester: the Restoration to the present.

**311, 312 History of Russia.** Semester courses; 3 lecture hours. 3, 3 credits. Russian history from its origins to the present, emphasizing the development of political and social institutions and Russia's unique position between Europe and Asia. First semester: origins to 1861. Second semester: 1861 to the present.

**313 History of the Jewish People.** Semester course; 3 lecture hours. 3 credits. A survey of the social, cultural, and religious developments in Jewish life from the revolt against Rome to the establishment of the State of Israel, with attention to those aspects of Jewish life in the Diaspora which supported survival of a particular ethnic consciousness.

**315, 316 The Ancient Near East.** (changed from HIS 307, 308) Semester courses; 3 lecture hours. 3, 3 credits. A study of the ancient Near Eastern civilizations of Mesopotamia, Egypt, Anatolia, and Syria-

Palestine, from the pre-literary period to that of the Archaemenid Empire of the Persians. First semester: pre-literary period to the end of Kassite rule in Babylonia (c. -1160 B.C.). Second semester: the rise and fall of the great Neo-Assyrian, Neo-Babylonian, Hebrew, and Persian Empires (c. -331 B.C.).

**317 Greek Civilization.** (changed from HIS 301) Semester course; 3 lecture hours. 3 credits. A study of the unique cultural heritage of Greece and the historical patterns that rose from it, from the Heroic Age to the urban worlds after Alexander, 1400 B.C.-146 B.C.

**318 Roman Civilization.** (changed from HIS 302) Semester course; 3 lecture hours. 3 credits. A study of Roman history as it derived from Roman cultural institutions, from the Etruscan period through the conflict of the pagan and Christian worlds and advent of the barbarians, 753 B.C.-A.D. 454.

**319/Art History 309 Introduction to Greek and Roman Archaeology.** Semester course; 3 lecture hours. 3 credits. Selected urban centers of the classical world, their rise, destruction, or renewal by urban planning; the history of classical archaeology and its impact on modern European art. Emphasis is on the living context of mature and complex peoples: Crete, Mycenae, Classical and Hellenistic Greece, the Etruscans, and Rome.

**321 The First Europe** (changed from HIS 303) Semester course; 3 lecture hours. 3 credits. A topical, thematic, integrative, and problems approach to the emergence of a distinctive European community during the period frequently alluded to as the "dark ages".

**322 Learning, Piety, and Power.** (changed from HIS 304) Semester course; 3 lecture hours. 3 credits. A detailed historical analysis of the Gregorian Revolution, the Crusades, the Twelfth Century Renaissance, the Thomistic world, and the death of Medieval civilization.

**323 Europe in Renaissance.** (changed from HIS 305) Semester course; 3 lecture hours. 3 credits. Examination of the political, economic, social, cultural, and religious dimensions of the Italian and Northern European renaissances.

**324 Europe in Religious Upheaval.** (changed from HIS 306) Semester course; 3 lecture hours. 3 credits. A careful and intensive inquiry into the spiritual and material forces and people involved in the reformation of Christendom in sixteenth-century Europe.

**325/Economics 320 Economic History of Europe.** First semester; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202 or 203. Studies of the origins and development of modern capitalistic economies with emphasis on transitional factors and institutional changes.

**326 European Urban History.** Semester course; 3 lecture hours. 3 credits. A study of the development of towns and cities in Europe from the tenth through the twentieth centuries, emphasizing the economic, social, and political roles played by cities.

**327 The Peasant in History.** Semester course; 3 lecture

hours. 3 credits. Selected aspects of peasant life from the ancient world to the present: economic roles, legal and social status, cultural level, and social habits and values. See schedule of classes for the exact topic each semester.

**329 The History of Women.** Semester course; 3 lecture hours. 3 credits. Through lecture, reading, and discussion, this course will attempt to trace and analyze historical changes in the economic, political, legal, and cultural position of women, including such topics as changing employment opportunities, the struggle for suffrage and political rights, and the history of social and sexual reform movements.

**331 History of Socialism.** Semester course; 3 lecture hours. 3 credits. An examination of the roots of socialism in the cultural and religious tradition of the West, its development during Europe's industrialization, its present status, and the alternative it presents to capitalism.

**332 History of Nationalism.** Semester course; 3 lecture hours. 3 credits. A survey of the role of nationalism for the internal development of states from the time of the Renaissance to the emancipation of Africa from colonialism.

**333 History of Colonialism and Imperialism.** Semester course; 3 lecture hours. 3 credits. Cause, course, and result of European colonialism from the Discoveries to its domination of the world in the Age of Industrialism, and its decline in the twentieth century.

**334 Comparative History of Modern Revolutions.** Semester course; 3 lecture hours. 3 credits. An investigation of the causes, events, results, and interpretations of the revolution in the modern age, focusing upon the revolutions in England, France, Mexico, Russia, China, and Cuba.

**335 Zionism and Israel.** Semester course; 3 lecture hours. 3 credits. An examination of the factors leading to the revival of Jewish nationalism and the creation of the State of Israel. Attention will be paid to developments within the State since 1948, and its impact on Jewish communities elsewhere.

**336 Modern European Intellectual History.** (changed from HIS 429, 430) Semester course; 3 lecture hours. 3 credits. An investigation of the main currents of European thought since 1750 which have shaped the contemporary mind. Emphasis on the interconnections between ideas and society placed in their historical contexts.

**337/Art History 337 The Origins of Modernism, 1880-1930.** Semester course; 3 lecture hours. 3 credits. An investigation of the interconnections between social, intellectual, and artistic change in Europe in the crucial period 1880-1930. Focus is placed on such major figures as Nietzsche, Freud, Einstein, Picasso, Duchamp, and Stravinsky in an attempt to locate the origins of contemporary artistic and intellectual experience.

**339, 340 History of Science and Technology.** Semester



courses; 3 lecture hours. 3, 3 credits. The development and impact of the modern sciences, the scientific method, the important scientists, relationship of science to technology, and the significance of technology in the modern world. First semester: to mid-nineteenth century. Second semester: since mid-nineteenth century.

**350 Sectionalism and Civil War.** (changed from HIS 403, 404) Semester course; 3 lecture hours. 3 credits. Analysis of the causes and manifestations of North-South sectional antagonism from 1844 to 1865 with particular emphasis on the political, military, and diplomatic conduct of the Civil War.

**351, 352 History of the South.** (changed from HIS 315, 316) Semester courses; 3 lecture hours. 3, 3 credits. A regional history placing particular emphasis upon the distinctive culture and problems of the South and its significance in the history of the United States. First semester: Old South, from Colonial period to 1861. Second semester: New South, from 1865 to the present.

**353, 354 Virginia History.** (changed from HIS 343, 344) Semester courses; 3 lecture hours. 3, 3 credits. A study of the political, economic, and cultural developments in the colony and Commonwealth of Virginia. First semester: Elizabethan period to 1789. Second semester: 1789 to the present.

**355, 356 American Social History.** Semester courses; 3 lecture hours. 3, 3 credits. The social life of Americans is examined in all periods of their history, focusing on the changing structure and functions of social institutions and thought. First semester: to 1876. Second semester: 1877 to the present.

**357 The Military in American Life.** Semester course; 3 lecture hours. 3 credits. Analysis of the evolution, status, and conduct of the armed forces of the United States from the colonial period to the present. Emphasis will be placed on the changing nature of American military thought and institutions, their performance in peace and war, and their relationship to civilian authority.

**358/Afro-American Studies 358 Americans from Africa: A History.** (changed from HIS 410/AAS 410) Semester course; 3 lecture hours. 3 credits. A survey of the history and contributions of Negro Americans from the African background to the present time. This course has been designed to be offered through a series of television lectures with seminars held on campus and at other points.

**359 American Ethnic History.** Semester course; 3 lecture hours. 3 credits. A history of immigrant groups in the United States and their impact upon the economic, political, and social mainstream of American life.

**360 American Labor History.** Semester course; 3 lecture hours. 3 credits. A survey of the development of American labor from colonial times to the present, with emphasis on the period since the Industrial Revolution. Particular attention will be given to the ideological

conflicts with organized labor and to the relations between labor and other elements of society.

**362 Community in America.** Semester course; 3 lecture hours. 3 credits. The relationship between individuals and their communities will be considered in all periods of American history, including colonial communities, utopian communities, urbanization and individualism, and modern communalism. American thinking about the proper role of communities will be emphasized.

**363, 364 History of the American Urban Experience.** (changed from HIS 423, 424) Semester courses; 3 lecture hours. 3, 3 credits. First semester: the evolution of colonial towns into industrial metropolises will be examined, placing emphasis on how this change determined contemporary conditions in American cities. Second semester: an examination of post-1880 urban developments (including suburbanization) emphasizes twentieth-century reformers' and intellectuals' efforts to understand and improve contemporary cities.

**365 American Intellectual History.** (changed from HIS 421, 422) Semester course; 3 lecture hours. 3 credits. The development of American life and thought, with emphasis on trends in social and religious ideas, patterns of living, and expressions in literature and the arts.

**368 Representative Americans.** Semester course; 3 lecture hours. 3 credits. This course deals with the life, times, and contributions to American culture of selected individuals such as Thomas Jefferson, P. T. Barnum, and Brigham Young.

**369, 370 American Constitutional and Legal Development.** (changed from HIS 425, 426) Semester courses; 3 lecture hours. 3, 3 credits. An analysis of the development of American constitutionalism and of concomitant legal developments, emphasizing judicial review, the relationship between the Constitution and modern industrialized society, and civil rights, as well as the growth of case law and the rise of the legal profession.

**374 History of the American Frontier.** (changed from HIS 323) Semester course; 3 lecture hours. 3 credits. A survey of the western movement in the United States from the time the first outposts were established to the end of the frontier in the nineteenth century. Particular attention to the influence of the frontier upon the American mind and ideals.

**375, 376 American Diplomatic History.** (changed from HIS 405, 406) Semester courses; 3 lecture hours. 3, 3 credits. A study of the role of the United States in international relations. Emphasis will be placed on institutional and theoretical development and continuity as well as the role of individuals. First semester: to 1900. Second semester: since 1900.

**377/Economics 319 Economic History of the United States.** Semester course; 3 lecture hours. 3 credits. A study of the American economic development from colonial beginnings to the present, treating such topics



as agriculture, industry, commerce, finance, economic causes and effects of wars, interrelationships of government and business, role of the entrepreneur, and the economic basis of cultural progress.

**381, 382 Modern China.** (changed from HIS 317, 318) Semester courses; 3 lecture hours. 3, 3 credits. First semester: the Confucian culture state under Ch'ing, confrontation with the West, and collapse (1644-1900). Second semester: intellectual, political, and social revolution; emergence and development of the People's Republic.

**383, 384 The Pacific Community.** Semester courses; 3 lecture hours. 3, 3 credits. The complex interrelationships among China, Japan, Southeast Asia, the Pacific islands, and the United States, with focus on traditional societies, modernization, revolutionary nationalism, the struggle for Pacific hegemony, and American power in the Pacific. First semester: 1700-1900. Second semester: 1900 to the present.

**385 The History of the Moslem Peoples.** (changed from HIS 337, 338) Semester course; 3 lecture hours. 3 credits. A study of the history of the people who have followed the religion of Islam, primarily Arabs, Turks, and Moors.

**388 Latin America and World Affairs.** Semester course; 3 lecture hours. 3 credits. A survey of the relation of Latin America since the 16th century to major world developments which have occurred and in which Latin America was involved.

**389 History of Mexico.** (changed from HIS 414) Semester course; 3 lecture hours. 3 credits. A study of Mexico and its culture, including early Indian civilizations, Spanish conquest, colonial period, independence, struggle for reform, revolution, and development as a modern state.

**390 History of Brazil.** (changed from HIS 413) Semester course; 3 lecture hours. 3 credits. A survey of the development of Brazilian culture and institutions from the Portuguese occupation of eastern South America through the Colonial period, independent empire, and the republic to the present time.

**391/Afro-American Studies 319 History of West Africa.** Semester course; 3 lecture hours. 3 credits. A study of the transformation of West African societies from the iron age to modern, independent nation-states, with stress on the roles of reforming Islam, European economic and cultural influences, and European colonialism.

**392/Afro-American Studies 392 History of Central and East Africa.** Semester course; 3 lecture hours. 3 credits. A history of the broad Bantu, Nilotic, and Cushitic middlebelt of tropical Africa from the European invasion to the present, emphasizing the factors leading to the development of modern nation-states and the problems which beset these nations today.

**393/Afro-American Studies 393 History of South Africa.** Semester course; 3 lecture hours. 3 credits. A study of South Africa from prehistoric times to the

present, emphasizing the pluralistic nature of the evolution of South African society and the interaction among the various communities and ethnolinguistic groups composing it.

**395 Topics in History.** Semester course; 1, 2, or 3 lecture hours. Variable credit. May be repeated with different topics for a maximum of 9 credits. An in depth study of a selected topic in history. See schedule of classes for specific topics to be offered each semester.

**461-462 Archival and Historical Administration.** Continuous course; 3 lecture and 3 workshop hours. 3-3 credits. First semester: an examination of the development of archival administration with emphasis on modern techniques and practices of archival and historical administration. Second semester: workshop in which each student will receive on-the-job training in various phases of archival administration.

**483 Museum Methods.** Semester course; 3 lecture hours. 3 credits. Practical presentation of techniques of working in museums, presented in conjunction with local or regional museums.

**485 Seminar in Historiography.** Semester course; 3 lecture hours. 3 credits. May be repeated for a total of 6 credits with different topics. Introduction to questions in historiography, meaning, methodology, and interpretation in the teaching and writing of history.

**486 Seminar in Historical Methodologies.** Semester course; 3 lecture hours. 3 credits. An introduction to the various methodologies used in historical research and an analysis of their reliability and limitations: includes quantification, oral history, psychohistory, and cliometrics. See schedule of classes for each semester's offerings.

**490 Seminar in History.** Semester course; 3 lecture hours. 3 credits; maximum 9 credits. Research and analysis of a selected historical topic in a seminar setting. See schedule of classes for each semester's offerings.

**491 Honors Seminar in History.** Semester course; 3 lecture hours. 3 credits; maximum 6 credits. Research and analysis of selected historical topics in a seminar setting. Open only to students in the history honors program.

**497 Independent Study.** Semester course; variable credit. 2-4 credits per semester; maximum total of 6 credits. Open generally only to students of junior and senior standing who have acquired 12 credits in the departmental disciplines. Determination of the amount of credit and permission of instructor and department chairman must be procured prior to registration for the course.

**498 Internship.** Semester course; variable credit. 2-4 credits per semester; maximum total of 6 credits. Open generally to students of senior standing. Students receive credit for work on historical projects with approved agencies. Determination of the amount of credit and permission of department chairman must be procured prior to registration for the course.

## COURSES IN HONORS (HON)

**195 Freshman Honors.** Semester course; 3 lecture hours. 3 credits; maximum total 6 credits. Prerequisite: permission of honors director. Course may be repeated once under different topic. An interdisciplinary course which will provide an intensive study of selected topics.

**295 Sophomore Honors.** Semester course; 3 lecture hours. 3 credits; maximum total 6 credits. Prerequisite: permission of honors director. Course may be repeated once under different topic. An interdisciplinary course which will provide an intensive study of selected topics. Appropriate prerequisites or co-requisites may be demanded.

## COURSES IN ITALIAN (ITA)

**101-102 Elementary Italian.** Continuous course; 3 lecture and 2 laboratory hours. 4-4 credits. Elementary grammar, reading, and oral drill.

**201-202 Intermediate Italian.** Continuous course; 3 lecture hours. 3-3 credits. Rapid review of the essentials of grammar; conversation, readings in Italian literature.

**301-302 Survey of Literature.** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: ITA 201-202. A survey of Italian literature from the Renaissance through the twentieth century. First semester: the Renaissance through the eighteenth century. Second semester: the nineteenth and twentieth centuries.

**305 Italian Conversation and Civilization.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ITA 201-202 or the equivalent. Practice in the spoken language with emphasis on discussions dealing with Italian civilization and culture. Taught in Italian.

## COURSES IN LANGUAGE SKILLS (LSK)

**101-102 Language for Performing Arts Majors.** Continuous course; 3 lecture hours. 3-3 credits. A study principally of the structure and pronunciation of French, German, and Italian. **Reserved exclusively for voice and drama majors in the School of the Arts.**

**103/Linguistics 103 Introduction to Languages.** Semester course; 3 lecture hours. 3 credits. A course designed to help students understand how languages function through a survey and contrastive analysis of language systems, with attention to the socio-cultural, psychological, and historical aspects of languages. (Completion of this course does not qualify a student to take the 200 level of a language without passing a language placement test.)

**201 Foreign Language Workshop—Performing Arts Majors.** Semester course; 3 lecture hours. 3 credits. Prerequisite: LSK 102 and/or permission of instructor. A workshop for the reinforcement and intensification of basic translating and pronunciation skills in French, German, and Italian, with particular emphasis on the individual student's needs. **Reserved exclusively for voice and drama majors in the School of the Arts.**

## COURSES IN LATIN (LAT)

**101-102 Elementary Latin.** Continuous course; 3 lecture hours. 3-3 credits. First semester: a study of the Latin language with emphasis on the Latin elements found in English. Latin vocabulary. Second semester: introduction to Latin authors and related aspects of Roman civilization.

**201-202 Readings in Latin Literature.** Continuous course; 3 lecture hours. 3-3 credits. Brief grammar review with a parallel study of political and literary trends and developments as found in several of the major Latin writers. First semester: prose, with emphasis on Cicero, Pliny the Younger, and Sallust. Second semester: poetry, with selected readings from Catullus, Tibullus, Ovid, and Vergil.

**301, 302 Survey of Literature.** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: LAT 201-202 or the equivalent. First semester: Latin prose authors such as Cicero, Pliny the Younger, Livy, Caesar, and Tacitus. Second semester: Latin poets such as Horace, Catullus, Ovid, and Vergil.

## COURSES IN LIBRARY SKILLS (LRS)

**101 Library Resources and Research Methods.** Semester course; 1 lecture and 2 laboratory hours. 2 credits. Designed for students at all levels who wish to improve their ability to use libraries in general and the Virginia Commonwealth University libraries in particular. The course emphasizes the use of the card catalog, bibliographies, indexes, abstracts, and other library resources. Directed to the individual student's subject interest as far as possible.

## COURSES IN LINGUISTICS (LIN)

E. Anne Duke, Coordinator

The following courses in linguistics are offered by the departments indicated. They are grouped here so that students may conveniently see what courses in linguistics are available.

**103/Language Skills 103 Introduction to Languages.** Semester course; 3 lecture hours. 3 credits. A course designed to help students understand how languages function through a survey and contrastive analysis of language systems, with attention to the socio-cultural, psychological, and historical aspects of languages. (Completion of this course does not qualify a student to enroll in the 200 level of a language without passing a language placement test.)

**306/Spanish 306 Spanish Linguistics.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SPA 201-202. A study of Spanish phonetics with oral practice in pronunciation, an introduction to the history of the Spanish language, and a review of linguistics problems encountered in the teaching of Spanish.

**316/French 316 French Linguistics.** Semester course; 3 lecture hours. 3 credits. A study of French phonetics

with oral practice in pronunciation, an introduction to the history of the French language, and a review of linguistic problems encountered in the teaching of French.

**330/Philosophy 330 Advanced Logic.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHI 222, MAT 211, or written consent of instructor. A thorough study of formal deduction as embodied in standard propositional and functional calculi. Course includes a treatment of the following topics: techniques for proving validity, truth functional analysis, quantification theory, relational arguments, and metalogic.

**403/Psychology 403 Introduction to Psycholinguistics.** Semester course; 3 lecture hours. 3 credits. Method and theory in studying language behavior. Topics include the structure of communication using language, language acquisition, the role of language in thinking and remembering, and the relation of language to other ways of communicating.

**438/Philosophy 438 Philosophy of Language.** Semester course; 3 lecture hours. 3 credits. An examination of topics such as meaning, reference, synonymy, truth, and speech acts, with specific emphasis on their importance for the contemporary study of language.

**446/English 446 Nonstandard Urban Dialects.** Semester course; 3 lecture hours. 3 credits. An examination of the language of the inner city and the pedagogical problems involved in teaching Standard English. Covers such topics as the phonology, syntax, and rhetoric of inner city nonstandard dialects. Primarily for prospective teachers.

**447/Anthropology 447 Language in Its Cultural Context.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ANT 103 or permission of instructor. How the use of language is affected by the social and cultural environment. Some attention is given to the analysis of language as such but the emphasis is on the relationship between language and culture. Topics include, language as an indicator of social change, language and taboo, bilingualism, linguistic nationalism, and language borrowing.

**448/English 448 Introduction to Linguistics: Phonology.** Semester course; 3 lecture hours. 3 credits. An introduction to methods of language analysis, emphasizing phonetics and phonemics. May not be used to satisfy the School of Arts and Sciences requirement in English.

**449/English 449 Introduction to Linguistics: Morphology and Syntax.** Semester course; 3 lecture hours. 3 credits. An introduction to methods of language analysis emphasizing units of meaning and their arrangements. May not be used to satisfy the School of Arts and Sciences requirement in English.

**450/English 450 Transformational Grammar.** Semester course; 3 lecture hours. 3 credits. Study of transformational theory with some attention to completing formal syntactic theories. May not be used to satisfy the School of Arts and Science requirement in English.

**451/English 451 History of the English Language.** Semester course; 3 lecture hours. 3 credits. The historical development of the English language; etymology, morphology, orthography, and semantics.

## COURSES IN MASS COMMUNICATIONS (MAC)

**101 Mass Communications.** Semester course; 3 lecture hours. 3 credits. The influence of, and techniques used by mass media, including ethical considerations. Origin of newspapers and periodicals and their evolution to mass circulation journalism of today. Structure, organization, management, content, and operation of radio, television, and motion picture industries. Attention is paid to roles of advertising and public relations.

**181 Principles of Advertising.** Semester course; 3 lecture hours. 3 credits. A survey of all forms of advertising; principles of layout copy; production methods; campaign preparation; media selection.

**203 Writing for the Mass Media.** Semester course; 1 lecture and 4 laboratory hours. 3 credits. Study and practice in fact gathering and development of the basic skills needed for writing for the media.

**210 Mass Media Graphics.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: MAC 101. A course on the functions of visual and graphic communication in news in the print and electronic media, involving creative typographic and layout design, pictures and nonverbal elements of communication and perception.

**215 History of Communications.** Semester course; 3 lecture hours. 3 credits. A study of the development of mass media in America from colonial times to the present in the context of the social, political, and economic factors that have contributed to change.

**261 Principles of Broadcasting.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAC 101. A basic journalistic introduction to the principles of broadcasting, including organization, structure, and function of stations.

**265 Radio-Television Production.** Semester course; 1 lecture and 4 laboratory hours. 3 credits. Study of production procedures and actual practice in radio and television production skills involving microphones, recorders, studio cameras, and control room operation and directing.

**303 Advanced Reporting.** Semester course; 1 lecture and 4 laboratory hours. 3 credits. Prerequisite: MAC 203. Detailed study of the techniques of reporting news, with emphasis on clarity and maturity of writing. Coverage of government agencies and other news sources that will help prepare the student to be a general assignment reporter.

**305 Editing and Makeup.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisites: MAC 203 and 210. Practice in copyreading and editing telegraph and local copy, a study of editing practices

and principles, picture usage. Some attention will be paid to makeup and design of leading American dailies.

**341 Feature and Article Writing.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAC 303 or 363 or permission of instructor. Practice in preparing articles and features for newspapers and magazines. Emphasis is on creative journalistic writing and development of writing skills.

**343 Magazine Editing and Materials Preparation.** Semester course, 3 lecture hours. 3 credits. Study of preparation of copy and illustrative materials for periodical publication. Attention given to industrial, agricultural, business, professional, and denominational periodicals.

**361 Newfilm.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: MAC 363-364. A study of the techniques and use of 16mm motion picture film in coverage of news for television.

**363-364 Advanced Broadcast Reporting.** Continuous course; 2 lecture and 2 laboratory hours. 3-3 credits. Prerequisites: MAC 101, 203, 261, and 265. A detailed study of the techniques of securing news and style of news writing for broadcast reporting.

**375 Legislative Reporting.** Semester course; laboratory. 1 credit. Prerequisites: MAC 303 or 363. Concentrated five week course to permit advanced students to gain reporting experience with the Virginia General Assembly.

**382 Media Strategy.** Semester course; 3 lecture hours. 3 credits. Development of media strategies to accomplish advertising objectives. The evaluation of media vehicles in terms of creative requirements, budget limitations, audience characteristics, and cost efficiency.

**384 Consumer Behavior.** Semester course; 3 lecture hours. 3 credits. A study of advertising as a social institution and a communication process. Incorporates concepts developed in the behavioral sciences as means of explaining consumer motivation and behavior.

**391 Newspaper Advertising.** Semester course; 3 lecture hours. 3 credits. A course in the preparation, placing, and proofing of advertising in daily and weekly newspapers. Its aim is to improve the appearance effectiveness and originality of newspaper advertising. Some attention is given to the organization and management of the advertising function in newspapers.

**393 Television and Radio Advertising.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Principles and practices of successful radio-television advertising; emphasis on media research, rate structure, and programming creativity in broadcast commercials.

**394 Advertising Copy and Layout.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. A lecture-laboratory course in the principles of layout and copy and their interdependence; problems in the preparation of layout and copy. Study of aesthetic, emotive, and

informative appeals and the development of creative strategies.

**403 Public Affairs Reporting.** Semester course; 1 lecture and 4 laboratory hours. 3 credits. Prerequisite: MAC 303. An advanced course to prepare students for coverage of people and government and to develop skills for in depth reporting of the major issues facing the community, especially the urban community.

**407 Newspaper Management.** Semester course; 3 lecture hours. 3 credits. Newspaper operations from the standpoint of business and editorial supervision. A study of newspaper plants, advertising, circulation, and business.

**408 Communications Law.** Semester course; 3 lecture hours. 3 credits. Study of legal limitations affecting publishing, advertising, broadcasting, and telecasting, and legal philosophy and ethics relating to the media of communications.

**411, 412 Field Work.** Semester courses; 4 laboratory hours. 3, 3 credits. Student works in the field under close supervision of instructor and work supervisor, the latter grading the student on various phases of his on-the-job employment and submitting these reports to the student's advisor. Selected students will take part in departmental programs of communications internships to gain practical experience by working with area newspapers, public relations offices, and radio and television stations.

**419 Journalism in the Schools.** Semester course; 3 lecture hours. 3 credits. Study of school newspapers, magazines, and yearbooks; problems relating to staff selection, content of publications, copy layout, advertising, printing, and business phases.

**422 Public Relations.** Semester course; 3 lecture hours. 3 credits. Study of public relations principles and practices, with special attention to tools, media, responsibilities, and potentialities.

**425 Public Opinion.** Semester course; 3 lecture hours. 3 credits. A study of the formation, reinforcement, and change of opinions and of the role of major social and political institutions and of the mass media in attitude change.

**461/Anthropology 461 The Documentary.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisites: MAC 361, 363-364 or permission of instructor. An examination of documentary concepts through analysis of radio, television, and film documentaries. The course will center on the development, writing, and production of a documentary in the medium (radio, television, or film) of the student's choice.

**467 Broadcast Newsroom Management.** Semester course; 3 hour seminar. 3 credits. Prerequisite: MAC 364. A study of studio organization, business demands, and managerial skills in operation of radio and television newsrooms from the standpoint of the news manager.

**481, 482 Advertising Campaigns I and II.** Semester courses; 3 lecture hours. 3, 3 credits. Intensive study in the planning and preparation of advertising campaigns. Working as advertising agencies, students develop complete advertising programs including research, basic advertising plans, media and creative strategies, sales promotion, and merchandising plans.

**483 Advertising Management.** Semester course; 3 lecture hours. 3 credits. Use of the problem-solving approach to management problems, organization of advertising departments, preparation of advertising budgets, and relations with advertising agencies.

**485 Direct Mail Copy and Production.** Semester course; 3 lecture hours. 3 credits. A study of the medium of direct mail. Instruction in planning, creating, and distributing effective direct mail advertising.

**486 Creative Advertising Workshops.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: MAC 394 or permission of instructor. A concentrated study of principles of advertising message development. Creative strategies will be developed to accomplish advertising objectives. Students develop and defend campaign themes and message ideas including print layouts and television storyboards. Emphasis on creating messages for multi-media exposure.

**487 Advertising Media Workshop.** Semester course; 3 credits. Prerequisite: permission of instructor or department chairman. The application of media principles, research, and techniques in the evaluation and selection of consumer and trade media. Students will develop total media plans with objectives, strategy, rationale, schedules, and budgets.

**488 International Advertising.** Semester course; 3 lecture hours. 3 credits. Prerequisite: permission of instructor. A study of the methods of advertising on the international market place. Discussion of multinational merchandising techniques and the American influence on foreign marketing practices.

**489 Sales Promotion.** Semester course; 3 lecture hours. 3 credits. Describes and analyzes sales promotion on three levels: with the manufacturer and his distribution; with the manufacturer and consumer; with the manufacturer and his sales force. Effective use of special media, merchandising activities, and sales aids also are discussed.

**492 Seminar in Advertising in Society.** Semester course; 3 lecture hours. 3 credits. An examination of the role of advertising in modern life in America in light of historical and recent development in advertising and distribution.

**495 Topics in Communication.** Semester course; 3 lecture hours. 3 credits. May be repeated with different topics for maximum of 6 credits. An intensive study of a specialized field of mass communications.

## COURSES IN MATHEMATICS (MAT)

Additional mathematical sciences courses in statistics and computer science may be found on pages 158 and 128, respectively.

Students registering for Mathematics 100, 111, 112, 115, 116, 200, 204, 211, Computer Science 201, or Statistics 213 must have taken the VCU Mathematics Placement Test within the one-year period immediately preceding the beginning of the course. The only exception to this policy is the case in which the stated alternate prerequisite course has been completed at VCU.

No more than six credits may be earned in mathematics courses numbered lower than 200.

**100 Unitized Mathematics.** Semester course; 3 laboratory hours. 0 to 3 credits, depending upon level of material. Students requiring any of the mathematics courses numbered 001, 101, 102, and 107, listed below, should register in Mathematics 100. On the basis of their background and placement of examination scores, students will be assigned to a self-paced course which utilizes audio-visual and tutorial support to permit the students to achieve their educational objectives.

**001 Laboratory and Tutorial.** Unitized course; 3 laboratory hours. No credit. Prerequisite: permission of the department. The purpose of this course is to provide laboratory and tutorial instruction for those seeking remediation or review of high school mathematics.

**101 College Algebra.** Unitized course; 3 lecture-laboratory-tutorial hours. 3 classes. 3 credits. Prerequisites: two years of high school algebra, plane geometry, and a satisfactory score on the mathematics placement test. A self-paced course in college algebra, using audio-visual and tutorial support in a laboratory setting.

**102 Trigonometry.** Unitized course; 3 lecture-laboratory-tutorial hours. 3 classes. 3 credits. Prerequisite: MAT 101 or a satisfactory score on the mathematics placement test. A self-paced course in trigonometry, using audio-visual and tutorial support in a laboratory setting.

**107 Algebra and Trigonometry.** Unitized course; 3 lecture-laboratory-tutorial hours. 3 classes. 3 credits. Prerequisites: high school trigonometry and a satisfactory score on the mathematics placement test. A self-paced course in college algebra and trigonometry, using audio-visual and tutorial support in a laboratory setting.

**111/Business 111 Basic Mathematics for the Behavioral, Social, and Management Sciences.** Semester course; 3 lecture hours. 3 credits. Prerequisites: one year of high school algebra and a satisfactory score on the mathematics placement test. Topics include sets, functions, exponents, logarithms, mathematics of finance, matrix algebra, systems of equations, and linear programming.

**112/Business 112 Elements of Calculus for the Behavioral, Social, and Management Sciences.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAT 101 or 111. Differential calculus, integral calculus, and probability.

**115-116 Modern Elementary Mathematics.** Continuous course. 3 lecture hours. 3-3 credits. Prerequisites: one year of algebra, plane geometry, and a satisfactory score on the mathematics placement test. Modern concepts of mathematics, history and development of number systems, algebra and geometry from the teacher's point of view. (Open only to majors in elementary, early childhood, and special education.)

**200-201 Calculus with Analytic Geometry.** Continuous course; 4 lecture hours. 4-4 credits. Prerequisite for MAT 200: MAT 101 or satisfactory score on the mathematics placement test (algebra portion). Prerequisite for MAT 201: MAT 200 and either MAT 102 or 107 or satisfactory score on the mathematics placement test (trigonometry portion). Limits, continuity, derivatives, differentials, antiderivatives, and definite integrals. Applications of differentiation and integration. Selected topics in analytic geometry. Infinite series.

**204 Elements of Calculus.** Semester course; 4 lecture hours. 4 credits. Prerequisite: MAT 101 or 111 or satisfactory score on the mathematics placement test. A conceptual course containing an introduction to sequences, functions, limits, derivatives and their applications, series, integration, and functions of several variables.

(Not open to students in chemistry, pre-engineering, mathematical sciences, or physics.)

**211 Mathematical Structures.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAT 102 or 107 or satisfactory score on the mathematics placement test. A brief introduction to logic and set theory. The study of a mathematical topic, selected to enlarge the student's view of mathematics.

**301 Differential Equations.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAT 201. Solution of ordinary differential equations of first order. Linear differential equations with constant coefficients using operator methods. Series solutions and applications.

**305 Elementary Number Theory.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAT 211. Divisibility, congruences. Euler phi-function, Fermat's Theorem, primitive roots, Diophantine equations.

**307 Multivariate Calculus.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAT 201. The calculus of vector-valued functions and of functions of more than one variable. Partial differentiation, multiple integrals, line integrals, surface integrals, and curvilinear coordinates. Lagrange multipliers; theorems of Green, Gauss, and Stokes. Applications.

**309 Introduction to Probability Theory.** Semester course; 3 lecture hours. 3 credits. Co-requisite: MAT 201. A study of the mathematical theory, including finite and infinite sample spaces, random variables, discrete and continuous distributions, mathematical

expectation, functions of random variables, and sampling distributions.

**310 Linear Algebra.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAT 201. Systems of linear equations, vector spaces, linear dependence, bases, dimensions, linear mappings, matrices, determinants, quadratic forms, orthogonal reduction to diagonal form, eigenvalues, and geometric applications.

**317 Advanced Mathematics for the Natural Sciences.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAT 200. Prerequisite or co-requisite: MAT 201. An examination of certain specialized topics frequently encountered in the applications of mathematics to the physical sciences. Topics include solution of linear differential equations and boundary value problems; matrix algebra including diagonalizing matrices and applications of matrix theory; and an introductory study of Fourier analysis as applied to physical systems. Emphasis on methodology, technique, and skill in problem-solving.

**401-402 Algebraic Structures.** Continuous course; 3 lecture hours. 3-3 credits. Prerequisites: MAT 211 and 310. A study of algebraic structure; groups, rings, fields, and vector spaces, Homomorphisms and isomorphisms.

**403 Intermediate Probability Theory.** Semester course; 3 lecture hours. 3 credits. Prerequisites: MAT 307 and 309. A continuation of topics given in MAT 309. An elementary introduction to stochastic processes and their applications, including Markov chains and Poisson processes.

**405 Modern Geometry.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAT 307; Co-requisite: MAT 310. Topics in Euclidean, projective and non-Euclidean geometries from a modern viewpoint.

**407-408 Analysis I, II.** Continuous course; 3 lecture hours. 3-3 credits. Prerequisites: MAT 211, 307, and 310 or permission of instructor. Theoretical aspects of calculus: sequences, limits, continuity, infinite series, series of functions, integration, differential geometry.

**409-410 General Topology I, II.** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: MAT 211 or equivalent. Foundations and fundamental concepts of point-set topology. Topological spaces, convergence, connected sets, compactness, product spaces, quotient spaces, function spaces, separation properties, metrization theorems, mappings, and compactification.

**411 Applied Linear Algebra.** Semester course; 3 lecture hours. 3 credits. Prerequisites: MAT 301 and 310. The algebra of matrices, the theory of finite dimensional vector spaces, and the basic results concerning eigenvectors and eigenvalues, with particular attention to applications.

**412 Applied Complex Analysis.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAT 407 or 417. The algebra and geometry of complex numbers, analytic functions, integration, series, contour integration, analytic continuation, conformal mapping, with particular attention to applications.



**415 Numerical Analysis I.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAT 301 and CSC 302. Solutions of equations, interpolation and approximations, numerical differentiation and integration, and numerical solution of initial value problems in ordinary differential equations. Selected algorithms will be programmed for solution on computers.

**416 Numerical Analysis II.** Semester course; 3 lecture hours. 3 credits. Prerequisites: MAT 310 and 415. The solution of linear systems by direct and iterative methods, matrix inversion, the evaluation of determinants, and the calculation of eigenvalues and eigenvectors of matrices. Application to boundary value problems or in ordinary differential equations. Introduction to the numerical solution of partial differential equations. Selected algorithms will be programmed for solution on computers.

**417-418 Methods of Applied Mathematics.** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: MAT 301. Vector analysis, matrices, complex analysis, special functions. Legendre and Hermite polynomials, Fourier differential equations, boundary-value and initial value problems.

**420 Game Theory and Linear Programming.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAT 310. The mathematical basis of game theory and linear programming. Matrix games, linear inequalities and convexity, the minimax theorem, optimal strategies.

**421 Intermediate Number Theory.** Semester course; 3 lecture hours. 3 credits. Prerequisites: MAT 305, 401, or permission of instructor. Introduction to algebraic numbers and algebraic number fields with emphasis on quadratic and cyclotomic fields. Units, primes, unique factorization. Discussion of Diophantine equations and simple continued fractions to the extent that they apply to the above topics.

**425 Introduction to Combinatorial Mathematics.** Semester course; 3 lecture hours. 3 credits. Prerequisites: MAT 211, 310, or permission of instructor. Introduction to the problems and methods of solution in the enumeration, existence, and construction of some discrete mathematical structures. Discussion of generating functions, recurrence relations, Ramsey's theorem, matching theory, combinatorial designs, Latin squares, and linear coding theory.

**497 Independent Study.** Semester course; variable credit, 2-3-4 credits per semester; maximum 4 credits per semester, maximum total of 6 credits. Generally open only to students of junior or senior standing who have acquired at least 12 credits in the departmental discipline. Determination of the amount of credit and permission of instructor and department chairman must be procured prior to registration for the course. The student must submit a proposal for investigating some area of problem not contained in the regular curriculum. The results of the student's study will be presented in a report.

## COURSES IN PHILOSOPHY (PHI)

**101, 102 Introduction to the Problems of Philosophy.** Semester courses; 3 lecture hours. 3, 3 credits. An introduction to the main branches and problems of philosophy. The first semester will emphasize problems concerning knowledge and reality; the second semester will emphasize problems concerning moral and social value.

**201, 202 Introduction to the History of Western Philosophy.** Semester courses; 3 lecture hours. 3, 3 credits. A survey of the development of critical and speculative thought in the Western World. First semester: ancient Greek through Medieval; second semester: Renaissance through the nineteenth century.

**221 Informal Logic.** Semester course; 3 lecture hours. 3 credits. An introduction to inductive and deductive reasoning, with emphasis on common errors and fallacies.

**222 Formal Logic.** Semester course; 3 lecture hours. 3 credits. An evaluation of deductive arguments utilizing the methods of symbolic logic.

**227 Introduction to Ethics.** Semester course; 3 lecture hours. 3 credits. A study of the major ethical systems in Western philosophy. Plato, Aristotle, Epicureanism, Stoicism, religious ethics, Kant, and Mill, among others, will be considered.

**231 Medical Ethics.** Semester course; 3 lecture hours. 3 credits. Prerequisite: sophomore standing. A philosophical examination of morally problematic areas in medicine: euthanasia, abortion, mental illness, human experimentation, genetic engineering, eugenics, informed consent, and the funding of health care.

**311 American Pragmatism.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHI 101 or 202 or written permission of instructor. An examination of some major philosophical writings selected from the work of C. S. Pierce, William James, John Dewey, G. H. Meade, and C. I. Lewis.

**319 Contemporary Philosophy.** Semester course; 3 lecture hours. 3 credits. Prerequisite: six credits in philosophy or permission of instructor. A study of the philosophical thought of the 20th century, concentrating on the analytic movement characteristic of Anglo-American philosophy and significant individual thinkers who stand outside this movement.

**323 Epistemology.** Semester course; 3 lecture hours. 3 credits. Prerequisite: six credits in philosophy or written permission of instructor. An examination of the problems of knowledge, including theories of truth, knowledge of the external world and other minds, and the distinctions between knowledge and belief.

**325 Metaphysics.** Semester course; 3 lecture hours. 3 credits. Prerequisite: six credits in philosophy or written permission of instructor. A critical examination of man's attempt to understand the universe as a whole, including such issues as the mind-body problems, determinism, time, and the privacy of sensations.



**326 Existentialism.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHI 101, 102. An examination of the nature of truth, freedom, responsibility, individuality, and interpersonal relations as found in some principal writings of Kierkegaard, Nietzsche, Jaspers, Sartre, Heidegger, Camus, Buber, Marcel.

**327 Ethical Theory.** Semester course; 3 lecture hours. 3 credits. A study of the problems of philosophical ethics, including relativism, egoism, utilitarianism, intrinsic value, and the meaning and justification of ethical principles. Both historical and contemporary thinkers will be considered.

**329 Business Ethics.** Semester course; 3 lecture hours. 3 credits. A philosophic investigation into the problems of making moral judgments as they arise in the context of controversial business practices. Examples to be considered include the fairness of pay scales, the responsibility of accountants, ethics in advertising, the rightness of profiteering in the sale of weapons, and conflicts between profit and ecological integrity.

**330/Linguistics 330 Advanced Logic.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHI 222, MAT 211 or written permission of instructor. A thorough study of formal deduction as embodied in standard propositional and functional calculi. Course includes a treatment of the following topics: techniques for proving validity, truth functional analysis, quantification theory, relational arguments, and metalogic.

**331 Philosophy of Science.** Semester course; 3 lecture hours. 3 credits. Prerequisite: six credits of philosophy or MAT 101-102 or equivalent, or written permission of instructor. An examination of the bases of scientific inquiry in both the natural and social sciences; including a study of such topics as hypothesis formation and testing, and the nature of scientific laws, theories, and explanations.

**335 Social and Political Philosophy.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHI 102, 227, or 327. A critical examination of political power and of the relationship between the individual and his society.

**408/Religious Studies 408 Indian Tradition.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHI 202 or RST 311. A systematic analysis of the major theories of Indian religious and philosophical thought: Vedas, Upanishads, Gita, Charvaka, Jainism, Buddhism, the six systems of Hinduism, and contemporary developments.

**410/Religious Studies 410 The Chinese Tradition in Philosophy.** Semester course; 3 lecture hours. 3 credits. A study of the development of Confucianism, of alternative ways of thought prior to the fall of the Han Dynasty, and of neo-Confucianism. The systems of thought are examined in the light of their social, political, and religious impact on China, Korea, and Japan.

**412/Religious Studies 412 Buddhism in East Asia.** Semester course; 3 lecture hours. 3 credits. A survey of the development of Buddhism in China, Korea, and Japan; the formation of the various schools in each

country; and their role in the molding of Far Eastern culture.

**421, 422 Aesthetics.** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: sophomore standing. A critical survey of aesthetics from antiquity to the twentieth century. First semester: antiquity to the Renaissance. Second semester: the Renaissance to the present. Topics to be considered include: the nature of art, aesthetic experience, the aesthetic object, and aesthetic judgments. Specific attention will be given to aesthetic analysis in the arts of painting, music, architecture, and the motion picture.

**430/Religious Studies 430 Philosophy of Religion.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHI 101, 102, or 201, 202, or permission of instructor. An introduction to the major problems and questions of religion and reason. Special reference will be made to the nature of God, the nature of man, the problem of evil, the source of good, immortality, and the basis of authority.

**438/Linguistics 438 Philosophy of Language.** Semester course; 3 lecture hours. 3 credits. An examination of topics such as meaning, reference, synonymy, truth and speech acts, with specific emphasis on their importance for the contemporary study of language.

**495 Topics in Philosophy.** Semester course; 3 lecture hours. 3 credits. May be repeated with different topics for maximum of 6 credits. Prerequisite: written permission of instructor. An in depth study of an individual philosopher, a particular philosophical problem or a narrowly defined period or school. See schedule of classes for specific topic to be offered each semester.

**497 Independent Study.** Semester course; Variable credit; maximum 4 credits per semester; maximum total for all independent study courses 6 credits. Open generally only to students of junior or senior standing who have acquired at least 12 credits in the departmental discipline. Determination of the amount of credit and permission of instructor and department chairman must be procured prior to registration for the course. An independent study course to allow interested majors in philosophy to do research, under the direction of a professor qualified in that field, in an area of major interest.

## COURSES IN PHYSICAL SCIENCE (PHS)

**101 Elementary Geology.** Semester course; 3 lecture hours. 3 credits. A descriptive approach to physical geology dealing with the history and structure of the earth, catastrophic events, and geology as it relates to the contemporary environment.

**103 Elementary Astronomy.** Semester course; 3 lecture hours. 3 credits. A descriptive approach to astronomy dealing with basic features of our solar system, our galaxy, and the universe.

**107-108 Physical Science.** Continuous course; 3 lecture and 2 laboratory hours. 4-4 credits. Prerequisite:

satisfactory score on mathematics placement test. A semi-quantitative survey of the central concepts of the physical sciences within a historical and societal framework. Designed primarily for non-science majors.

**307 Introduction to Material Science.** Semester course; 3 lecture hours. 3 credits. Prerequisites: general chemistry and general physics. A basic course in the relation of physical and mechanical properties of materials to their structure and environment. Includes introductions to crystallography, physical metallurgy, and ceramics with emphasis on materials in industrial applications.

**308 Physical Metallurgy.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHS 307. A course in principles of physical metallurgy investigating the origins of the structure and physical properties of metals and alloys. Contents include the metallic state, equilibrium diagrams, diffusion defects, physical properties, elastic and plastic deformations, and mechanical properties.

**310 Man in the Cosmos.** Semester course; variable credit. 1-3 credits per semester. Three independent modules (sections), five successive weeks each. Prerequisites: 3 credits in a natural science or permission of instructor. Section 1: *Extraterrestrial Life*. Probability of existence. Aspects of detection and communication. Ramifications. Section 2: *Cosmology*. Classical and relativistic cosmologies. Specific models. Influence of the current astronomical revolution. Section 3: *Astronomy and Astrology*. Origins, historical development. Modern content. Relevance and validity of each.

## COURSES IN PHYSICS (PHY)

**101 Physics and Today's World.** Semester course; 3 lecture hours. 3 credits. An introduction to the basic concepts of classical and modern physics with an emphasis on those principles which are particularly applicable in our modern world. For non-science majors.

**103 Introductory Physics for Radiology.** Semester course; 3 lecture hours. 3 credits. Properties of matter and basic principles of mechanics, electricity, and magnetism. (For radiologic technology students only.)

**201-202 General Physics.** Continuous course: 3 lecture and 2 laboratory hours. 4-4 credits. Prerequisite: MAT 101 or 107. First semester: basic concepts of motion, waves, and heat. Second semester: basic concepts of electricity, magnetism, light, and modern physics. Designed primarily for life-science majors.

**207 University Physics I.** Semester course; 4 lecture and 3 laboratory hours. 5 credits. Co-requisite MAT 200. A vector- and calculus-based introduction to the fundamental concepts of mechanics, heat, and wave motion.

**208 University Physics II.** Semester course; 4 lecture and 3 laboratory hours. 5 credits. Prerequisite: PHY

207. Co-requisite: MAT 201. A vector- and calculus-based introduction to the fundamentals of electricity, magnetism, and optics.

**315 Energy and the Environment.** Semester course; 3 lecture hours. 3 credits. Open to non-majors. Not applicable to the physics major. Prerequisite: junior or senior standing. Man and his physical environment; a semi-quantitative study of man's physical needs for energy and environmental problems associated with these requirements.

**320 Introduction to Modern Physics I.** Semester course; 3 lecture hours. 3 credits. Prerequisites: PHY 208 or 202 and MAT 201. Foundations of modern physics including special relativity, thermal radiation and quantization, wave-particle duality of radiation and matter, and Schrodinger's theory of quantum mechanics.

**L320 Modern Physics Laboratory.** Semester course; 3 laboratory hours. 1 credit. Prerequisite or co-requisite: PHY 320. Experimental work correlated with PHY 320.

**321 Introduction to Modern Physics II.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHY 320. Co-requisite: MAT 317 or 301. Quantum mechanical phenomena with applications to atomic, solid, and nuclear systems.

**L321 Modern Physics Laboratory II.** Semester course; 3 laboratory hours. 1 credit. Prerequisite: PHY L320. Experimental work correlated with PHY 321.

**322 Optics.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisites: PHY 208 or 202 and MAT 200. An introduction to geometric, physical, and quantum optics.

**329 Introduction to Biological Physics.** Semester course, 3 lecture hours. 3 credits. Prerequisites: PHY 207, 208, or 201-202. Applications of physics to biology and medicine.

**331 Electric Circuits and Electronics.** Semester course; 3 lecture and 3 laboratory hours. 4 credits. Prerequisite: PHY 208 or 202. Elements of dc and ac circuits, conduction phenomena in metals and semiconductors, and elements of electronics.

**337 Classical Mechanics.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHY 208 or 202. Co-requisite: MAT 307. Mechanics of particles, systems of particles, rigid bodies, continuous media, and wave motion.

**338 Mechanics of Continuous Media.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHY 337 or premission of instructor. Principles of continuum mechanics; fluid mechanics and elasticity.

**340 Introduction to Statistical Physics and Thermodynamics.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHY 208 or 202. Co-requisite: MAT 307. Introduction to classical thermodynamics, kinetic theory, and statistical mechanics.

**362 Electromagnetism.** Semester course; 3 lecture

hours. 3 credits. Prerequisites: PHY 208 or 202 and MAT 307. Electrostatics, magnetism, and electromagnetic properties of matter.

**431 Intermediate Electronics.** Semester course; 2 lecture and 4 laboratory hours. 4 credits. Prerequisite: PHY 331 or permission of instructor. Fundamental circuits and devices. Electronic instrumentation for control, measurement, and computation. Applications for the physical and life sciences, engineering, and industry.

**471 Theoretical Mechanics.** Semester course; 3 lecture hours. 3 credits. Prerequisites: PHY 337 and MAT 301 or permission of instructor. An introduction to advanced dynamics involving the Lagrangian and Hamiltonian formalisms.

**476 Electromagnetic Theory.** Semester course; 3 lecture hours. 3 credits. Prerequisites: PHY 362 and MAT 301 or permission of instructor. Maxwell's equations of electromagnetism, vector and scalar potentials, electromagnetic waves, and radiation theory.

**480 Quantum Mechanics.** Semester course; 3 lecture hours. 3 credits. Prerequisites: PHY 351, MAT 301, or permission of instructor. Theoretical quantum descriptions with emphasis upon mathematical techniques. Schrodinger equation, hydrogen atom, eigenfunctions and eigenvalues, angular momentum and spin, and perturbation theory.

**495 Topics in Physics.** Semester course; 3 lecture hours. 3 credits. Maximum total of 3 credits in topics courses. An in depth study of a selected topic in physics. See schedule of classes for specific topic to be offered each semester.

**497 Independent Study.** Semester course; variable credit. 1-3 credits per semester; maximum total 3 credits. Open generally only to students of junior or senior standing who have acquired at least 12 credits in the departmental discipline. Determination of the amount of credit and permission of instructor and department chairman must be procured prior to the registration for the course. Directed projects in experimental or theoretical physics.

## COURSES IN POLITICAL SCIENCE (POS)

**101, 102 American Government.** (Changed from POS 201, 202) Semester courses; 3 lecture hours. 3, 3 credits. A study of the American system of government, including the organization and functioning of national, state, and local government in the United States. First semester; essentials of American government; federal institutions. Second semester: federal powers and functions; state and local governments.

**201 Introduction to Political Science.** (Changed from POS 101) Semester course; 3 lecture hours. 3 credits. This course will acquaint students with principles and concepts involved in the study of politics and with some basic similarities and differences between the major

types of political systems. Some attention will also be devoted to political ideologies and to research methods applicable to political science.

**202 Introduction to Comparative Government.** Semester course; 3 lecture hours. 3 credits. Study of the nature and aims of comparative government, with emphasis on analytical concepts such as alienation, political socialization, political aggregation, and recruitment.

**203 Issues in World Politics.** Semester course; 3 lecture hours. 3 credits. An exploration of selected major issues in world politics at the present time. Emphasis will be on comprehending the nature, origins, and significance of each issue. The course will also examine efforts at dealing with the issues and possible alternative solutions.

**214/Sociology 214 Applications of Statistics.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: STA 213. The application of descriptive and inferential statistics for the social sciences.

**301 American Parties and Politics.** Semester course; 3 lecture hours. 3 credits. A study of the historical development, organization, and methods of political parties in the United States.

**306 The Congress.** Semester course; 3 lecture hours. 3 credits. Prerequisites: 101 and 102. A study of the behavior of legislators and the structures and processes of legislative decision-making in the U.S. Congress. Analysis will include both the internal and external environment of congressional policy-making, and an assessment of the impact of congressional policy.

**308 The Presidency.** Semester course; 3 lecture hours. 3 credits. A political and institutional study of the chief executive, focusing especially on the Presidential personality, his relations with Congress, the bureaucracy, the courts, and the shaping of domestic and foreign policy.

**310 The National Policy Process.** Semester course; 3 lecture hours. 3 credits. An analytical survey of policy formulation and operations of the United States Government at the national level, together with an examination of the impact of policy upon groups and individuals in American society.

**313, 314 American Constitutional Law.** Semester courses; 3 lecture hours. 3, 3 credits. A survey of the development of the Constitution through judicial interpretation. First semester: an introduction to the Supreme Court and to decisions on federalism, the powers of Congress, the President, and the Judiciary. Second semester: Supreme Court decisions on civil rights and civil liberties.

**316 Legal Rights and Responsibilities.** (Changed from POS 452) Semester course; 3 lecture hours. 3 credits. A general survey of the most common legal problems facing the average citizen to aid in understanding basic fundamentals of law. Content to be designed to meet the interests of the class and cover such topics as wills, personal liability, real property law, and legal protection of ideas, writings, and art.

**320/Sociology 320 Research Methods in the Social Sciences.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: POS/SOC 214. Current methods of research in the social sciences.

**321 Municipal Government and Administration.** Semester course; 3 lecture hours. 3 credits. A study of the development, organization, and administration of cities in the United States. Special attention will be given to the problems and prospects of municipal government in Richmond and Virginia.

**322 State and Local Government in the United States.** Semester course; 3 lecture hours. 3 credits. A study of the organization, problems, and politics of government and administration of the 50 states and their cities, counties, towns, and metropolitan areas, with special emphasis on the Virginia state and local government experience.

**323 Virginia Government and Politics.** Semester course; 3 lecture hours. 3 credits. A study of politics and government at the state and local level in Virginia. Topics include parties and political patterns; state and local government structure and process; political and governmental challenge of and response to urbanization, and patterns in selected policy areas.

**327/Urban Studies 327 Contemporary Urban Problems.** Semester course; 3 lecture hours. 3 credits. A study of urban affairs with particular reference to complex urban problems. An inventory will be made of contemporary urban problems and of devices for dealing effectively with them. Special attention will be given to new concepts, such as multi-jurisdictional planning.

**328/Urban Studies 328 Seminar in Urban Problems and Solutions.** Semester course; 3 lecture hours. 3 credits. Prerequisite: POS 327 or permission of instructor. A continuation of POS 327 with emphasis upon possible solutions to the problems of urban communities.

**331 Public Administration.** (Changed from POS 402) Semester course; 3 lecture hours. 3 credits. A study of the concepts and practices of public administration in the United States. Particular attention will be given to the administrative procedures and practices of the national government and the government of Virginia.

**334 Public Personnel Administration.** (Changed from POS 324) Semester course; 3 lecture hours. 3 credits. An analysis of personnel management in government. Recruitment and selection, job and salary classification, work standards and training, and relations of public personnel to the executive and legislative branches of government will be included among the topics to be discussed.

**341, 342 History of Political Thought.** (Changed from POS 305, 306) Semester courses; 3 lecture hours. 3, 3 credits. A survey of political thought from the time of Plato to the present. First semester: leading political ideas of the ancient and medieval periods. Second semester: modern and contemporary thought.

**343/Afro-American Studies 343 Black Political Thought.** (Changed from POS 302) Semester course; 3 lecture hours. 3 credits. An historical and sociological perspective on the political and social ideas of black thinkers from David Walker to the present.

**352, 353 Government and Politics of Western Europe.** Semester courses; 3 lecture hours. 3, 3 credits. A comparative study of the political systems of selected Western European countries. Foci of the study will include political culture and socialization, political conflict and recruitment, political participation, policymaking and policy implementing institutions and processes, and political change. First semester: will focus on the political systems of the United Kingdom, Federal Republic of Germany and, in addition, either one of the Benelux states or one of the Scandinavian states. Second semester: will focus on France, Italy, and selected southern European countries.

**354 The Soviet Political System.** Semester course; 3 lecture hours. 3 credits. A study of the origins, institutions, and processes on the Soviet political system with special emphasis on the post-Stalinist era.

**355 Asian Political Systems.** Semester course; 3 lecture hours. 3 credits. A comparative analysis of the major Southeast Asian governments, with attention to one or more South Asian country (India, Pakistan, Bangladesh, etc.)

**361 Principles and Practices of International Relations.** (Changed from POS 403) Semester course; 3 lecture hours. 3 credits. A survey of world affairs with particular attention to economic resources, political diplomacy, power politics, and other tools of international relations.

**362 International Organizations and Institutions** (Changed from POS 307). Semester course; 3 lecture hours. 3 credits. The structure and operation of such organizations and regional institutions as the United Nations, the European Economic Community, the Organization for Economic Cooperation and Development, the Organization of American States, the Central American Common Market, the Latin American Free Trade Association, the North Atlantic Treaty Organization, and the Southeast Asia Treaty Organization.

**363 American Foreign Policy.** (Changed from POS 309) Semester course; 3 lecture hours. 3 credits. An analytical survey of processes and practices in the formation of United States foreign policy, including an introduction to the goals, problems of implementation, and current challenges faced by policymakers.

**415 Judicial Policymaking.** Semester course; 3 lecture hours. 3 credits. Prerequisite: POS 313 or 314. A study of theories and models of judicial decision making in the Supreme Court, focusing on judicial structure and procedures, policy-making analysis, political ideology, and judicial activism.

**425 Public Policy in the States.** Semester course. 3 lecture hours. 3 credits. The course focuses primarily upon the policy outcomes of state political systems

rather than upon institutional processes. Social, economic, political, and governmental structures and their relationship to state policy are analyzed; means of policy evaluation are considered; and the insights developed are applied to substantive areas of state policy.

**429 Intergovernmental Relations.** Semester course; 3 lecture hours. 3 credits. An examination of vertical and horizontal intergovernmental relations in the United States. Attention will be given to the major variants of federalism. The role of grants and revenue sharing in programmatic federalism will be assessed. Some conclusions on the future of intergovernmental relations will be advanced.

**432 Public Bureaucracy.** Semester course; 3 lecture hours. 3 credits. Prerequisite: POS 331. An analysis of the nature of bureaucracy and bureaucratic phenomena in American Governments; the role and involvement of the bureaucracy in politics and the policy-making process. Primary focus on theories and approaches to understanding the central role of bureaucracy in modern society and its use and abuse of power.

**448 Scope and Method of Political Science.** Semester course; 3 lecture hours. 3 credits. Prerequisites: POS 101, 102, 201, or permission of instructor. A comprehensive and systematic study of the philosophy of political science, various theories seeking to explain political phenomena, and some of the techniques of political analysis.

**451 Political Modernization.** Semester course; 3 lecture hours. 3 credits. Prerequisites: POS 201 and 203. An analysis of the process and problems of political modernization; the interaction and mutual impact of cultural, social, and economic factors with the modernizing process. Course will consider also theoretical models of modernization.

**452 Seminar in Third World Politics.** Semester course; 3 lecture hours. 3 credits. An exploration of the Third World, its origin, its present politics, and its potential as a future power bloc.

**453 The Military in Politics.** Semester course; 3 lecture hours. 3 credits. Prerequisite: permission of instructor. Course will examine the pervasive character and growing importance of the military in the governmental and policymaking processes. It will include a study of the history of civil-military relations, and of the changing dynamics of the relationship that occurs in response to changes in social and political contexts and as a result of technological changes in the military and warfare.

**454 Seminar in Comparative Communism.** Semester course; 3 lecture hours. 3 credit hours. Prerequisite: POS 201 or permission of instructor. A study of the theories, models, and hypotheses of the Communist party states. This course will also investigate the similarities and the differences of the political process among various Communist party states.

**456 Government and Politics of China.** Semester course; 3 lecture hours. 3 credits. This course is a study

of political and institutional aspects of contemporary China. Special attention will be given to the various aspects of ideology, mass and revolutionary movements, leadership and the decision-making process, party and bureaucracy, the military and foreign relations; particularly American-Chinese relationships.

**466 Chinese and Soviet Foreign Policy.** Semester course; 3 lecture hours. 3 credits. Prerequisite: POS 201 or permission of instructor. A study of Chinese and Soviet foreign policy behavior with emphasis on foundations, decision-making processes, and the pattern of interactions with other political systems.

**468 Seminar on Comparative Foreign Policy.** Semester course; 3 lecture hours. 3 credits. Prerequisite: POS 201 or permission of instructor. A study of theories, models, and hypotheses of foreign policy behavior in various types of political systems with emphasis on empirical research and analysis of differences and similarities.

**495 Topics in Political Science.** Semester course; 3 lecture hours. 3 credits; maximum total of 9 credits in all departmental topics courses may be applied to the major. An intensive survey of a specialized field of political interest. See schedule of classes for specific topics to be offered each semester.

**497 Independent Study.** Semester course; variable credit; maximum 4 credits per semester; maximum total for all independent study courses 6 credits. Open generally only to students of junior or senior standing who have acquired at least 12 credits in political science. Determination of the amount of credit and permission of the instructor and department chairman must be obtained prior to registration for the course. An independent study course which allows a political science major or other student who meets the requirement to do research, under the direction of an instructor qualified in that area, in a subject or field of major interest.

**498/Urban Studies 498 Urban Government Internship.** Semester course; 150 clock hours in a local legislative body or administrative agency. 3 credits. May be repeated once for a maximum total of 6 credits. Prerequisites: POS 331 (formerly 402), URS 441, and POS 321 or URS 421 and approval of selection committee. Under supervision of a faculty committee and a field supervisor, the internship is designed to present opportunities for qualified students to acquire exposure to aspects of public decision-making processes by participation in (1) local legislative bodies of the Richmond metropolitan area, (2) local and regional administrative agencies, commissions, and boards, and (3) private organizations that have demonstrated interest in local government and politics.

## COURSES IN PSYCHOLOGY (PSY)

**101 General Psychology.** Semester course; 3 lecture hours. 3 credits. A prerequisite for upper-level work in the field of psychology. A survey of the basic principles, methods of investigation, and fields of study and application.

**207 Improvement of Reading Efficiency.** Semester course; 1 lecture and 2 laboratory hours. 2 credits. A thorough, practical course designed for adults who realize that the ability to read rapidly and comprehend accurately is important for success in many modern occupations. Reading difficulties are diagnosed, and a program developing improved reading habits is outlined for each student for increasing reading speed, improving comprehension, or improving study skills, according to results of diagnosis. Measurement of gains will be made from time to time during the course.

**214 Applications of Statistics.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: STA 213. Frequency distributions, measures of central tendency and variability; sampling, probability, correlation, and significance tests as applied in psychological data.

**NOTE: PSY 101 is a prerequisite for the following courses.**

**301 Child Psychology.** Semester course; 3 lecture hours. 3 credits. A study is made of the growth and development of the child until puberty. Childlife is viewed in terms of physical, mental, social, emotional, and educational factors.

**302 Psychology of Adolescence.** Semester course; 3 lecture hours. 3 credits. A study of mental, moral, social, and physical development from puberty to maturity viewed as in child psychology. Designed for secondary school teachers, youth leaders, and professional psychologists.

**303 Mental Hygiene.** Semester course; 3 lecture hours. 3 credits. A survey of those factors which facilitate the efficient and happy functioning of the individual. Pathological factors will be studied to some extent, in an effort to point ways of avoiding them.

**304 Development Psychology.** Semester course; 3 lecture hours. 3 credits. Various empirical and theoretical areas of general psychology considered from a development perspective. Topics include: research methods, learning, cognition, intelligence, socialization, personality, cross-cultural studies, phyletic comparisons, effects of early experience, aging, and genetic influences. Consideration is given to all parts of the life cycle.

**305 Educational Psychology.** Semester course; 3 lecture hours. 3 credits. The application of psychological principles to the teaching-learning process, with special emphasis on theories of learning and development.

**307 Parapsychology.** Semester course; 3 lecture hours. 3 credits. A presentation of recent experimental work in extra-sensory perception, psychokinesis, clairvoyance, precognition, mental telepathy, and other psi phenomena, presented against a background of scientific method. The mind-body problem is a focus of discussion. Classroom experiments are included.

**310 Industrial Psychology.** Semester course; 3 lecture hours. 3 credits. Application of psychological principles and techniques to problems in personnel management and human engineering; recruitment, selection,

training, and placement in industry; criteria in testing and test development; morale evaluation and improvement, employee counseling; work-management communications; human engineering in equipment design, quality control, working conditions, and safety.

**317 Experimental Methods.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: PSY 214. Introduction to experimental procedures and laboratory techniques in psychology. Demonstrations and experiments in sensation, perception, learning, emotion, and motivation.

**318 Science of Behavior.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: PSY 317. Introduction to past and current research in sensation, perception, learning, emotion, and motivation. Behavioral data from both humans and animals. Implications for psychology as a science of behavior.

**321 Social Psychology.** Semester course; 3 lecture hours. 3 credits. A survey of theories and methods in social psychology, social influence processes, socialization, attitudes, interpersonal perception, cultural influences in personality, structure and dynamics of small groups, conformity, leadership, and intergroup and international relations.

**322/Afro-American Studies 322 Personality and Behavior of the Afro-American.** Semester course; 3 lecture hours. 3 credits. A study of personality factors such as motivation, ego-functioning, and the socialization processes, with special emphasis on living conditions of Afro-Americans.

**323 Interpersonal Relations.** Semester course; 3 lecture hours. 3 credits. Types of interpersonal relations. Attraction, friendship, love, and independence as factors in the development of relationships. The evolution of relationships from initiation through dissolution. Opportunity for student exploration of their own interpersonal sphere.

**324 Psychology of Advertising.** Semester course; 3 lecture hours. 3 credits. Psychological factors involved in determining attention, attitudes, and suggestibility as related to consumer preferences and purchasing habits; the role of advertising in influencing consumer behavior.

**341/Sociology 341 Group Dynamics.** Semester course; 3 lecture hours. 3 credits. Social and psychological principles and research related to the individual in groups. Specific topics include motivation for individuals forming and joining groups, performance and productivity of group members, group leadership, and majority and minority influence. The group will be examined in relation to the larger society and as a subculture in itself.

**401 Physiological Psychology.** Semester course; 3 lecture hours. 3 credits. Data from the fields of anatomy and physiology are presented, and their implications for psychology are discussed. The central nervous system, internal environment, vision, audition, reflexes, emotion, learning, behavior disorders, and their physiologi-



cal components. Behavior of human organism is studied from the psycho-physiological point of view.

**403/Linguistics 403 Introduction to Psycholinguistics.** Semester course; 3 lecture hours. 3 credits. Method and theory in studying language behavior. Topics include the structure of communication using language, language acquisition, the role of language in thinking and remembering, and the relation of language to other ways of communicating.

**405 Humanistic Psychology.** Semester course; 3 lecture hours. 3 credits. A critical examination of the "third force" psychology emphasizing person-centered and growth-oriented frameworks for the analysis of human behavior. Topics include the development of the self, creativity, growth, and values from the perspective of such humanistic theories as Abraham Maslow, Rollo May, and Carl Rogers. Research will be surveyed and the impact of humanistic psychology in applied areas will be considered.

**406 Perception.** Semester course; 3 lecture hours. 3 credits. Historical development of perceptual problems in psychology. A survey of early and contemporary major perceptual theories and related research with major emphasis on visual perception.

**407 Psychology of the Abnormal.** Semester course; 3 lecture hours. 3 credits. Development of personality is discussed, with emphasis on factors leading to maladjustment. Lectures and readings cover the symptom groups of emotional disorders of both psychological and organic origin. Methods of assessing and treating these disorders are surveyed.

**409 Personality.** Semester course; 3 lecture hours. 3 credits. The study of the various approaches to understanding human behavior in terms of personality theory. Various theories will be examined for commonality and uniqueness in assumptions, structure dynamics, and development of personality.

**410 Principles of Learning.** Semester course; 3 lecture hours. 3 credits. A course involving principles of learning as they apply to reinforcement, extinction, motivation, emotion, problem-solving, etc., with emphasis on experimental findings. Major theoretical approaches will be examined.

**411 Survey of Psychological Tests.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PSY 214. Concepts in psychological measurement and a survey of commonly used groups tests; testing procedures and rationale underlying these tests; tests of intelligence, aptitude, achievement, interest, and personality critically examined, procedures described for selecting and evaluating specific group tests in these areas.

**413 Psychology of the Arts and Artists.** Semester course; 3 lecture hours. 3 credits. The meaning and function of the arts as a social and psychological phenomena. The personality of the artist and his sociocultural role. Psychological processes and experiences in producing the works of art. Emphasis on the graphic and plastic arts.

**415 Animal Behavior.** Semester course; 3 lecture

hours. 3 credits. Review of methodology and data from ethology and comparative psychology. Explores the effects of learning, motivation, social, and developmental factors on the behavior of organisms ranging from one-celled animals to primates.

**424 Occupational Information and Career Development.** Semester course; 3 lecture hours. 3 credits. Survey of current research. Methods of obtaining occupational information and uses of that information in counseling.

**425 Field Work.** Semester course; 1 full day. 3 credits. The student is placed in an agency that can provide a supervised work experience appropriate to his psychological interests. The setting might be a psychiatric clinic or hospital, a correctional institution, a personnel department, an educational project, a recreation facility, a research project, a vocational guidance center, a general hospital, a juvenile court, or other agency. The student works one full day a week. May be repeated, with advisor's approval, for a total of 6 credits.

**426 Child Psychopathology.** Semester course; 3 lecture hours. 3 credits. Deviations from normal personality and emotional development. Major theoretical approaches to treatment of childhood disorders.

**427 Psychology of the Handicapped.** Semester course; 3 lecture hours. 3 credits. A survey of the handicapped person, with a particular emphasis on the mentally retarded, crippled, cerebral palsied, and hard-of-hearing: extent and nature of the handicap; psychological and emotional aspects; education and treatment and rehabilitation.

**430 Engineering Psychology.** Semester course; 3 lecture hours. 3 credits. Theory and research related to man-machine-environment systems, their design and effectiveness. Human sensory processes as they relate to information input, human information processing, and human output activities. Application of knowledge in these areas to the design and use of mechanical systems and to man-machine system compatibility.

**431 Industrial Safety.** Semester course; 3 lecture hours. 3 credits. A comprehensive study of the principles and methods for the control and prevention of accidents adapted to the need of business and industry.

**440 Principles of Vocational Counseling.** Semester course; 3 lecture hours. 3 credits. The nature of the counseling interview. The relationship of aptitudes, abilities, interests, personality, and training to vocational behavior. The role of psychometrics in vocational counseling.

**441 Selection and Classification.** Semester course; 3 lecture hours. 3 credits. Study of principles of theory and psychological tests used in industry for selection and classification of personnel. Special emphasis on relationship between tests and criteria of job success. Other devices used for selection and classification such as interviews and personal history will also be covered.



**450 Psychology of the Mentally Retarded.** Semester course; 3 lecture hours. 3 credits. An analysis of the mentally retarded with special emphasis on the causes of retardation, psychological evaluation, diagnosis, and classification as well as training, education, and counseling with retardates. Also included are the problems of institutionalization and the training of workers in the field.

**451 History and Systems of Psychology.** Semester course; 3 lecture hours. 3 credits. The history of psychological ideas and theories emphasizing the origins and interrelationships of the major viewpoints and systems from ancient Greece to the present.

**453-454 Behavior Technology.** Continuous course; 2 lecture and 6 practicum hours. 3-3 credits. Prerequisites: PSY 214 and permission of instructor. The first semester is a survey of approaches to the observation of human behavior and provides 6 hours per week of experience in coding observations in a variety of community treatment settings. The second semester is a survey of behavioral techniques. In addition the student is placed in a community treatment setting for 6 hours per week to serve as a behavioral treatment aide.

**490 Seminar in Psychology.** Semester course; 3 seminar hours. 3 credits. May be repeated for a maximum of 6 credits. Prerequisite: permission of instructor. Enrollment is limited to psychology majors in their senior year. A selected theoretical or research topic of current interest.

**497 Independent Study.** Semester course; Variable credit. 1, 2, or 3 credits per semester; maximum total for all independent study courses 6 credits. Open generally only to students of junior or senior standing who have acquired at least 12 credits in the departmental discipline. Determination of the amount of credit and permission of instructor and department chairman must be procured prior to registration for the course. Individual research or readings project under supervision of staff member with oral comprehensive at end of semester.

## COURSES IN RELIGIOUS STUDIES (RST)

**101 Introduction to Religious Studies.** Semester course; 3 lecture hours. 3 credits. An introduction to various methodologies for the study of religion and to recurring issues and problems involved in religious life and thought.

**211 Christian Ethics.** Semester course; 3 lecture hours. 3 credits. An historical and systematic consideration of ethical norms and their application to current problems.

**301 Introduction to the Old Testament.** Semester course; 3 lecture hours. 3 credits. A survey of the Old Testament from its beginning through the post-Exile period. Emphasis given to the literary and historical development of the text.

**302 Introduction to the New Testament.** Semester

course; 3 lecture hours. 3 credits. A survey of the New Testament with particular emphasis given to the historical development of the Canon.

**303 Intertestamental Literature and Thought.** Semester course; 3 lecture hours. 3 credits. Prerequisite: either RST 301 or 302. The period between the Old and New Testaments as seen through the literature of the era, with emphasis on the writings of the *Apocrypha*, *Pseudepigrapha*, and Josephus.

**304 Historical Development of Judaic Thought.** Semester course; 3 lecture hours. 3 credits. Prerequisite: RST 301. A general survey of the dynamics and characteristic patterns of Judaic thought from earliest times to the present.

**305 Hebrew Prophets.** Semester course; 3 lecture hours. 3 credits. Prerequisite: RST 301. A survey of the literature and history of Israel as seen through the work of the writing prophets. Emphasis will be placed on the second part of the Hebrew Canon and the Book of Daniel.

**307/Afro-American Studies 307 Black Religion.** Semester course; 3 lecture hours. 3 credits. An analysis of the role of religion in the lives of blacks with an emphasis on African religions and philosophies, the black church in America, and the roles of the various faiths, sects and cults.

**311, 312 Religions of the World.** Semester courses; 3 lecture hours. 3, 3 credits. An investigation of the historical, cultural, and theological foundations and development of major world religions. First semester: Hinduism, Buddhism, Confucianism, Taoism, and Shinto. Second semester: Zoroastrianism, Judaism, Christianity, and Islam.

**313 Life and Literature of Paul.** Semester course; 3 lecture hours. 3 credits. Prerequisite: RST 302. A survey of the life and literature of Paul as given in Acts and the Epistles, involving special consideration of Paul's contribution to the expansion of Christianity.

**314 Jesus in the New Testament Tradition.** Semester course; 3 lecture hours. 3 credits. A study of the Christ of faith and the Jesus of history as presented in the New Testament literature and as interpreted in the works of selected scholars from the Church Fathers to the present.

**315 Israel and the Ancient Near East.** Semester course; 3 lecture hours. 3 credits. Prerequisite: RST 301. A comparative study of ancient Near Eastern political histories, cultures, and religions, with respect to their influence in Israelite customs and society. The latest archaeological and inscriptional evidence will be reviewed.

**321 Dead Sea Scrolls.** Semester course; 3 lecture hours. 3 credits. Prerequisite: RST 301. A survey of the major manuscript discoveries from Qumran near the Dead Sea, some of the theories concerning them, and an examination of their significance for biblical scholarship.

**331, 332 Christianity and Culture.** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: six credits of religious studies. A study of the interaction of Christianity and Western culture.

**334 Religion in Contemporary America.** Semester course; 3 lecture hours. 3 credits. Religious phenomena in American life and thought ranging from denominationalism to the Jesus Movement.

**361/English 361 The Bible as Literature.** Semester course; 3 lecture hours. 3 credits. Literary aspects of the Bible will be considered. Also attention will be given to the history of the English Bible.

**403 History of Western Religion.** Semester course; 3 lecture hours. 3 credits. A study of the development of religious thought and action in Western culture, including the Medieval, Reformation, Counter-Reformation, and Modern periods.

**405 Contemporary Problems in Christian Thinking.** Semester course; 3 lecture hours. 3 credits. Prerequisite: permission of instructor. Problems to be treated include the Christian understanding of history, the current ecumenical movement within the church, reinterpretation of traditional doctrines, and changes in ethical thinking and social involvement.

**406 Islam.** Semester course; 3 lecture hours. 3 credits. Prerequisite: RST 312. A study of the antecedents, historical advent, and contemporary structure of the Islamic religion.

**408/Philosophy 408 Indian Tradition.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHI 202 or RST 311. A systematic analysis of the major theories of Indian religious and philosophical thought: Vedas, Upanishads, Gita, Charvaka, Jainism, Buddhism, the six systems of Hinduism, and contemporary developments.

**410/Philosophy 410 The Chinese Tradition in Philosophy.** Semester course; 3 lecture hours. 3 credits. A study of the development of Confucianism, of alternative ways of thought prior to the fall of the Han Dynasty, and of neo-Confucianism. The systems of thought are examined in the light of their social, political and religious impact on China, Korea, and Japan.

**412/Philosophy 412 Buddhism in East Asia.** Semester course; 3 lecture hours. 3 credits. A survey of the development of Buddhism in China, Korea, and Japan, the formation of the various schools in each country, and their role in the molding of Far Eastern culture.

**430/Philosophy 430 Philosophy of Religion.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHI 101, 102, or 201, 202, or permission of instructor. An introduction to the major problems and questions of religion and reason. Special reference will be made to the nature of God, the nature of man, the problem of evil, the source of good, immortality, and the basis of authority.

**495 Topics in Religious Studies.** Semester course; 3

lecture hours. 3 credits. May be repeated with different topics for maximum of 6 credits. Prerequisite: written permission of instructor. An in depth study of selected ideas of concepts, religious thinkers, or significant movements in the field of religion. See schedule of classes for specific topic to be offered each semester.

**497 Independent Study.** Semester course; variable credit, maximum 4 credits per semester; maximum total for all independent study courses 6 credits. Open generally only to students of junior or senior standing who have acquired at least 12 credits in the departmental discipline. Determination of the amount of credit and permission of instructor and department chairman must be procured prior to registration for the course. An independent study course to allow interested students in religious studies to do research in an area of major interest under the direction of a professor qualified in that field.

## COURSES IN RUSSIAN (RUS)

**101-102 Elementary Russian.** Continuous course; 3 lecture and 2 laboratory hours. 4-4 credits. Elementary grammar, reading, and oral drill.

**201-202 Intermediate Russian.** Continuous course; 3 lecture hours; 3-3 credits. Rapid review of the essentials of grammar; conversation, readings in Russian literature.

**301, 302 Survey of Literature.** Semester courses; 3 lecture hours; 3, 3 credits. Conducted in Russian. Prerequisite: RUS 201-202 or the equivalent. First semester: nineteenth century; Pushkin, Gogol, Turgenev. Second semester: late nineteenth and twentieth centuries; Tolstoy, Dostoyevski, Chekhov, and some modern Soviet writers.

## COURSES IN SOCIOLOGY (SOC)

**101 General Sociology.** Semester course; 3 lecture hours. 3 credits. An introduction to the study of human society. The basic concepts of society and culture and their relationships to each other are studied and then used to analyze the major social institutions.

**102 Social Problems in the United States.** Semester course; 3 lecture hours. 3 credits. A sociological approach to selected contemporary social problems through use of such analytical concepts as role, social class, and subculture.

**105/Afro-American Studies 105 Sociology of Racism.** Semester course; 3 lecture hours. 3 credits. The course will explore the direct and indirect ways in which racial attitudes are acquired, their effect on individuals and society, and the institutional and ideological manifestations of racism as a "faith system," as exploitation, and as a form of human conflict. The central focus of interest will be on black-white relationships.

**200 The Community.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. A comparative analysis of communities from different parts of the world.

**203 Social Deviance and Social Control.** Semester course; 3 lecture hours. 3 credits. An analysis of the relationship between social structure, social control, and patterns of social deviance; a survey and critique of present social science theories in light of empirical research and application of the theories to selected problem areas.

**210 Collective Behavior.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. An analysis of non-institutional forms of behavior, including mobs, riots, and social movements.

**214/Political Science 214 Applications of Statistics.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: STA 213. The application of descriptive and inferential statistics for the social sciences.

**304 Sociology of the Family.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. The family in selected cultures; analysis of socialization and the parent-child relationship, courtship and marriage, family crises and problems, and the influence of social change on the family.

**305/Afro-American Studies 305 Sociology of the Black Family.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101 or permission of instructor. A socio-history of the development of the dynamics of the black family.

**315 Sociology of Education.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. Analysis of education as a social institution in the societal context. Cross-cultural comparative perspectives on education.

**318 Social Thought.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. A review of the ideas of major social philosophers whose works are now the foundation of much modern sociology.

**319/Anthropology 319 Field Methods in Sociology-Anthropology.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101 or ANT 103. The study and application of qualitative field techniques for the collection and analysis of primary sociological and anthropological data. The student will use observations, interviews, and field work techniques.

**320/Political Science 320 Research Methods in the Social Sciences.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: STA 213. Current methods of research in sociology.

**321 Social Stratification.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. Analysis of social mobility, class, status, and power.

**322 Minority Groups in the United States.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. A study of the various racial, religious, and ethnic minority groups. Accommodation and assimilation. Relation of subcultures to the dominant culture.

**327 Urban Sociology.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. Origin, character, and significance of urban communities. Ecological and social factors are analyzed as well as

changes in urban social organization and their consequences.

**331 Juvenile Delinquency.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. Analysis of the biological, cultural, psychological, and social factors involved in juvenile delinquency and their relation to current techniques of treatment, prevention, and control.

**333 Sex Roles.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101 or permission of instructor. A cross-cultural and evolutionary exploration of the interdependence between male and female roles in the following social institutions: family, law, economics, politics, religion, education, and health.

**340 Social Psychology.** Semester course; 3 lecture hours. 3 credits. Focused discussion of the regularities in human behavior that arise due to man's participation in social groups. Emphasis will be placed on such topics as communications, attitudes, language; interpersonal perception, personal identities, and social interaction.

**341/Psychology 341 Group Dynamics.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PSY 101. Social and psychological principles and research related to the individual in groups. Specific topics include motivation for individuals forming and joining groups, performance and productivity of group members, group leadership, and majority and minority influence. The group will be examined in relation to the larger society and as a subculture in itself.

**352 Social and Cultural Change.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. An analysis of the process of social and cultural factors in relationship to specific reform, revolutionary, and expressive social movements.

**395 Topics in Sociology.** Semester course; 3 lecture hours. 3 credits, maximum 6 credits per semester; maximum total of 18 credits in all departmental topics courses which may be applied to the major. A discussion of specialized areas of sociological interest. See schedule of classes for specific topics to be offered each semester. Check with department for specific prerequisites.

**402 Sociological Theory.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. A study of the works of the major sociological theorists of the 20th century.

**403 Criminology.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. Analysis of the nature, extent, and distribution of crime emphasizing theories of and research on causation, prediction, and prevention.

**421 Applied Social Research.** Semester course; Variable credit. Can be repeated for a total of 6 credits. Prerequisites: SOC 214 and 320. A laboratory course providing training in the application of social research methods under laboratory and field situations to problems of mutual interest to community policymakers and professionals in the disciplines of sociology, social psychology, and anthropology. This course is designed to enhance the skills of students in applied

social research. With direct supervision by the instructor, individuals, or small groups of students will address themselves to the tasks of defining, designing, and executing research projects.

**426 Population.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. The study of trends in fertility, mortality, population growth, distribution, migration, and composition. The mutual influences of these factors and social organization.

**428 Comparative Urban Systems.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. Typologies of cities. Cross-cultural comparisons of social institutions in specifically urban forms and context, cross-cultural views, and experience of major urban problems.

**430 Political Sociology.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. Sociological analysis of political organization and behavior. Such subjects as distribution and uses of power, creation and management of group conflict, development and diffusion of political ideologies, and problems of bureaucracy and mass society will be considered.

**436 Industrial Sociology.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. The study of industrial plants and business organization as social systems.

**445 Medical Sociology.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. A survey of the social, economic, cultural, and social psychological factors in health and illness; the sociology of health and medical care organizations and settings; the sociology of health occupations; and the techniques of research in medical sociology.

**446 Sociology of Mental Health and Illness.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. A survey of selected social, economic, cultural, and social psychological factors in mental health and illness. Such problems as defining mental illness; social factors in the distribution, diagnosis, etiology, and treatment of mental disorders; mental illness as a social role; and research methods used in the sociology of mental illness will be considered.

**448 Drug Dependence: Sociological and Pharmacological Aspects.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101 or Pharmacology 300 or permission of instructor. This course will treat the behavioral pharmacological effects of drugs and the impact of drugs and drug users on societies from a sociological point of view. Interdisciplinary in nature, the course will involve primarily the Departments of Pharmacology and Sociology/Anthropology.

**475 Organizations and Human Behavior.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. A survey of theory and research in social organizations, including the study of behavior in modern complex human organizations.

**476 Sociology of Occupations.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SOC 101. An examination of labor force participation in terms of the

individual worker's experience, the work setting, the nature of occupations, and labor force composition.

**497 Independent Study.** Semester course; variable credit, maximum 6 credits per semester; maximum total for all independent study courses 12 credits. Open generally only to students of junior or senior standing who have acquired at least 12 credits in the departmental discipline. Determination of the amount of credit and permission of the instructor and department chairman must be procured prior to registration for the course. Cannot be used in places of existing courses.

## COURSES IN SPANISH (SPA)

**101-102 Elementary Spanish.** Continuous course; 3 lecture and 2 laboratory hours. 4-4 credits. Elementary grammar, reading, and oral drills.

**103 Spanish for Medical Personnel.** Semester course; 3 lecture hours. 3 credits. A course designed to enable the physician and his helpers to communicate with Spanish-speaking patients in hospitals and clinics. (Completion of this course does not qualify a student to take SPA 201 without passing a language placement test. May not be used to fulfill the foreign language requirement.)

**104 Spanish for Community Service Personnel.** Semester course; 3 lecture hours. 3 credits. A course designed to equip teachers, policemen, firemen, and social workers with a functional knowledge of conversational Spanish. (Completion of this course does not qualify a student to take Spanish 201 without passing the language placement test. May not be used to fulfill the foreign language requirement.)

**151-152 Spanish for Business Majors.** Continuous course; 3 lecture hours. 3-3 credits. A study of business Spanish. (Completion of this course does not qualify a student to take intermediate language without passing the language placement test. May not be used to fulfill the foreign language requirement.)

**201-202 Intermediate Spanish.** Continuous course; 3 lecture and 1 laboratory hour, 3-3 credits. Rapid review of the essentials of grammar; conversation, readings in Spanish literature.

**301, 302 Survey of Literature.** Semester courses; 3 lecture hours, 3, 3 credits. Conducted in Spanish. Prerequisite: SPA 201-202. A survey of Spanish literature up to the present.

**303, 304 Advanced Grammar and Translation.** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: SPA 201-202 or the equivalent. A systematic review of Spanish grammar with emphasis on the elements of style and vocabulary building; translation of English stylists.

**305 Conversation and Civilization.** Semester course; 3 lecture hours. 3 credits. Prerequisite: SPA 201-202 or the equivalent. Practice in the spoken language with emphasis on discussions dealing with Spanish and Latin-American civilization. Taught in Spanish.

**306/Linguistics 306 Spanish Linguistics.** Semester

course; 3 lecture hours. 3 credits. Prerequisite: SPA 201-202. A study of Spanish phonetics with oral practice in pronunciation; an introduction to the history of the Spanish language, and a review of linguistic problems encountered in the teaching of Spanish.

**321, 322 Survey of the Literature of Spanish America.** Semester courses; 3 lecture hours. 3, 3 credits. Prerequisite: SPA 201-202. An introduction to major authors and trends. First semester: from discovery to independence. Second semester: from independence to the present. Taught in Spanish.

**NOTE: SPA 301, 302 or 303, 304 are prerequisite to all the following courses.**

**411 The Middle Ages.** Semester course; 3 lecture hours. 3 credits. Reading and discussion of such representative works as the following: *El Poema de Mio Cid* (anonymous); selections from the lyric poetry; selections from the works of Gonzalo de Berceo; *El Auto de los Reyes Magos*; *El Libro del Conde Lucanor*, Don Juan Manuel; *El Libro de Buen Amor*, Arcipreste de Hita. Taught in Spanish.

**413 The Golden Age.** Semester course; 3 lecture hours. 3 credits. A reading and discussion of some of the representative works of such authors as Cervantes, Lope de Vega, Tirso de Molina, Calderon, Alarcon, Gongora, and Garcilaso de la Vega. Taught in Spanish.

**417 Nineteenth-Century Literature.** Semester course; 3 lecture hours. 3 credits. A reading and discussion of representative works of Valera, Fernan Caballero, Pereda, Galdos, Clarin, Larra, Espronceda, Duque de Rivas, and Pardo Bazan. Taught in Spanish.

**420 The Twentieth Century.** Semester course; 3 lecture hours. 3 credits. Reading and discussion of representative works of Ganimet, Azorin, Unamuno, Baroja, Valle-Inclan, Perez de Ayala, Garcia Lorca, Sotela, Ortega, Gironella, Cela, Goytisolo, Laforet, and Matute. Taught in Spanish.

**425 Spanish-American Literature: Prose/Fiction.** Semester course; 3 lecture hours. 3 credits. An in depth reading and discussion of novels and short stories. Taught in Spanish.

**426 Spanish-American Literature: Poetry/Drama/Essay.** Semester course; 3 lecture hours. 3 credits. An in depth reading and discussion of outstanding works of each of these three genres. Taught in Spanish.

**495 Topics in Spanish.** Semester course; 3 lecture hours. 3 credits. May be repeated with different topics for a maximum total of 6 credits. An in depth study of selected topics in Spanish. See schedule of classes for specific topic to be offered each semester.

**497 Independent Study.** Semester course; variable credit, maximum 3 credits per semester; maximum total for all independent study courses in Spanish 6 credits. Open generally only to students of junior or senior standing who have six credits of upper-level Spanish courses and/or have demonstrated a competency in the language. Determination of course content and permission of instructor and department chairman must be obtained prior to registration for the course. A course designed to give students an opportunity to

become involved in independent study in a literary or linguistic area or subject in which they have an interest.

## COURSES IN STATISTICS (STA)

**212 Concepts of Statistics.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAT 200 or 211. An introduction to the nature of statistical thinking and the application of abstract systems to the resolution of non-abstract problems. Probability models for stochastic events. Parametric representations. Estimation, testing hypotheses and interval estimation with application to classical models. (A core course for mathematical sciences.)

**213 Introduction to Statistics.** Semester course; 3 lecture hours. 3 credits. Prerequisites: two years of high school algebra and a satisfactory score on the mathematics placement test. Elementary probability, organization and analysis of data, combinatorial analysis, binomial distribution, random sampling, testing hypotheses, non-parametric statistics, regression and correlation, analysis of variance. (Not open to students in mathematical sciences.)

**214 Applications of Statistics.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: STA 213. A study of nature and application of statistical methods including analysis of variance, regression, and correlation. Special topics include distribution free methods in various statistical problems.

(Psychology majors see PSY 214; sociology and anthropology majors see SOC 213.)

**413-414 Mathematical Statistics.** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: MAT 307. Probability, discrete and continuous distributions, moment generating functions, limit theorems, estimation, decision theory and testing hypotheses, relationships in a set of random variables, linear models, and design.

**423 Nonparametric Statistical Methods.** Semester course; 3 lecture hours. 3 credits. Prerequisites: Any two semesters of statistics or permission of instructor. Estimation and hypothesis testing when the form of the underlying distribution is unknown. One-, two-, and k-sample problems. Test of randomness, Kolmogorov-Smirnov tests, analysis of contingency tables, and coefficients of association.

**433 Applied Linear Regression.** Semester course; 3 lecture hours. 3 credits. Prerequisites: MAT 310 and any two semesters of statistics. An introduction to the concepts and methods of regression analysis, including simple linear regression and correlation, multiple regression and correlation. Application of the multiple regression model to the analysis of variance.

**443-444 Statistical Methods.** Continuous course; 2 lecture and 1 laboratory hour. 3-3 credits. Prerequisites: any two semesters of statistics or permission of instructor. Statistical methods including analysis of variance, regression, correlation, and distribution free methods. Includes use of statistical packages.

**See also: MAT Introduction to Probability Theory  
MAT 403 Intermediate Probability Theory**

PART VIII—School of Business

J. CURTIS HALL  
Dean  
JOHN D. LAMBERT  
Associate Dean  
ROBERT N. SHEFFIELD  
Assistant Dean

The primary objective of the School of Business is to prepare students for professional careers in business, government, research, and education. The general requirements for all students in the school are designed to provide a broad knowledge of life in general and of business in particular. The major requirements provide opportunity for extensive study in specific fields.

Within the primary objective, the School of Business has these goals:

- 1. To render service to the business community
- 2. To engage in and encourage research in business-related fields
- 3. To provide service to other schools in the university
- 4. To contribute to the identification and solution of problems related to the urban mission of the university

The School of Business offers degree programs in accounting, business administration and management, economics, information systems, marketing, and office administration. It also offers, in cooperation

with the School of Education, a degree program in business education.

GENERAL REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN BUSINESS

A minimum of 126 credits, no more than four of which may be in physical education (activities), is required. The credit requirements for all Bachelor of Science degree programs in business are to be distributed as follows:

1. General Requirements (51 credits)	
	<i>Credits</i>
A. Composition and Rhetoric .....	6
B. Principles of Economics .....	6
C. Mathematics (BUS 111, 112 or MAT 111, 112) .....	6
D. Restricted Electives—A total of 24 credits must be earned from the following four fields. At least three credits must be earned in each field .....	24
(1) Humanities, selected from the following suggested areas: art (non-studio), Humanities 295, language, literature (including foreign literature in English translation), music (non-studio), philosophy, religious studies	
(2) Human Behavior, selected from the following suggested areas: psychology, sociology, anthropology	
(3) Institutional Studies, selected from the following suggested areas: political science, history, geography	
(4) Natural Science	



E. Non-School of Business Electives .....	9
2. School of Business Core (36 credits)	
BUS 203-204 Introduction to Accounting ..	6
BUS 301 Business Statistics .....	3
BUS 308 Introduction to Marketing .....	3
BUS 311 Financial Management .....	3
BUS 321-322 Organization and Management	6
BUS 323 Legal Environment of Business ...	3
BUS 325 Business Communications .....	3
BUS 360 Information Systems Concepts ....	3
BUS 434 Policy Determination .....	3
ECO 303 Theory of the Firm .....	3
3. Major Requirements (27 credits)—See the specific requirements listed under the major requirements section of the particular department .....	27
4. Electives .....	12
<hr/>	
Total .....	126

**ACCOUNTING**

MERVYN W. WINGFIELD  
Chairman of the Department

David J. Broda / Edward N. Coffman  
B. Roland Freasier, Jr. / Charles L. Holley  
Raymond T. Holmes, Jr. / H. Wayne Hudgins  
Catherine E. Miles / James G. Rennie, Jr.  
Richard A. Scott / James B. Shelton  
John B. Sperry / James H. Stanley  
Charles E. Troland, Jr. / Jackie G. Williams  
H. David Willis

The accounting major permits students to tailor their educational programs to satisfy differing objectives and career goals. Students may elect to study in one of the five optional fields listed below. Students who did not perform well in BUS 203-204 should consult their advisors or the department chairman when considering the major in accounting.

**Major Requirements**

	<i>Credits</i>
BUS 303-304 Financial Accounting I and II ....	6
BUS 404 Financial Accounting III .....	3
Elective Option (Courses taken in one of the following fields: public accounting, tax accounting, managerial accounting, governmental accounting, health care organization accounting) .....	18
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	27

**POST-BACCALAUREATE  
CERTIFICATE IN ACCOUNTING**

The post-baccalaureate certificate in accounting is designed for students who hold a bachelor's degree in fields other than ac-

counting and who desire to continue their education beyond the undergraduate level but who do not aspire to a master's degree. Candidates for the certificate are required to complete a total of 30 hours including the courses presented below, or their equivalents, with a minimum of 24 credit hours of study in accounting to be taken at Virginia Commonwealth University with a minimum "C" average. The program is designed to provide a basic common body of knowledge in accounting. Persons desiring to sit for the Uniform Certified Public Accountants Examination or the examination leading to the Certificate in Management Accounting should consult with their advisors concerning specific requirements.

**Requirements**

	<i>Credits</i>
BUS 203-204 <sup>1</sup> Introduction to Accounting .....	6
BUS 303-304 Financial Accounting I and II ....	6
BUS 404 Financial Accounting III .....	3
Accounting Electives .....	15
<hr/>	
	30

Applicants to the program should seek information from the Director of Graduate Studies, School of Business, 1015 Floyd Avenue, Richmond, Virginia 23284.

**BUSINESS ADMINISTRATION AND  
MANAGEMENT**

JAY H. HEIZER

Chairman of the Department  
Moustafa H. Abdelsamad / Sam G. Berry  
James H. Boykin / Edward C. Brindley, Jr.  
Darrel R. Brown / Collin Bushway  
George C. Canavos / William H. Daughtrey  
Herbert J. Davis / Guy J. DeGenaro  
William O. Edwards / Jerry T. Ferguson  
Glenn H. Gilbreath / Jerri D. Gilbreath  
Walter S. Griggs, Jr. / Frederick C. Haas  
David C. Heinze / Neil J. Humphreys  
Eugene H. Hunt / Wallace R. Johnston  
Martin W. Marquardt / Elbert G. Miller  
George W. Rimler / Neale M. Robertson  
Harvey W. Rubin / Robert W. Scull  
Randall G. Sleeth / Alfred L. Smith, Jr.  
Michael A. Spinelli / Jack E. Thornton  
Paul M. Umberger / George A. C. Woolley III  
Part-time: Ann R. Coates / James H. Herbert

<sup>1</sup> BUS 607 may be taken in lieu of BUS 203-204. This requires that an additional three credit hours must be taken in an accounting elective to make up the difference in the credit requirement.



The major in business administration and management is designed to provide a broad education in business, management, and administration. In addition to the broad aspects of the program, students elect to study further in professional fields. Election of these fields should be made by students before the beginning of the second semester of their junior year.

### Major Requirements

	<i>Credits</i>
BUS 333 Risk and Insurance .....	3
BUS 302 Business Statistics .....	3
BUS 487 Management Decision Methods .....	3
BUS 499 Management Seminar .....	3
ECO 307 Money and Banking .....	3
Courses taken in one of seven professional fields or general business. The professional fields are:	
Finance	
Insurance/Financial Security	
International Business	
Owner/Manager Business	
Personnel and Industrial Relations	
Production/Operations Management	
Real Estate and Urban Land Development ...	12
	<hr/> 27

### BUSINESS EDUCATION AND OFFICE ADMINISTRATION

J. HOWARD JACKSON

Chairman of the Department

Owen F. Fields / David E. Gootnick  
 Laura B. Greer / Dorothy E. Lee  
 C. Glenn Pearce / Neda B. Tucker  
 Woodie L. Tucker / Patricia A. Witt

The programs in business education are designed for young men and women who desire careers in teaching business subjects on the junior high school, the senior high school, or the college level.

The four-year program in business education includes 48 semester credits of general education required of all teachers certified by the Commonwealth of Virginia. See the requirements from the School of Education for a listing of these credits.

In addition to the Bachelor of Science degree program in business education, the department offers the Bachelor of Science program in office administration as well as associate degree programs in general secretarial, legal secretarial, and medical secretarial.

Endorsements to teach may be earned in selected areas of business education by completing 45 semester hours as follows:

Area A: General Office Procedures . . . . . 45 credits  
 (Endorsed to teach basic business, bookkeeping, office procedures, and typewriting.)

Area B: Stenography . . . . . 45 credits  
 (Endorsed to teach basic business, office procedures, recordkeeping, shorthand, and typewriting.)

Area C: Bookkeeping-Data Processing . . . 45 credits  
 (Endorsed to teach basic business, bookkeeping and accounting, data processing, and office procedures.)

**Separate Subject Endorsement:** endorsement in specific subject areas may be earned by completing the number of credits indicated:

Basic Business .....	12 credits
Bookkeeping and Accounting .....	12 credits
Data Processing .....	12 credits
Shorthand (9 hours) and Typewriting (6 hours) .....	15 credits <sup>2</sup>
Office Systems and Procedures .....	12 credits

Candidates who wish to be endorsed in a limited area may substitute approved electives to complete the degree program.

### Curriculum in Business Education

#### Area A: General Office Procedures

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>First Year</i>		
BIO 101-102 General Biology (or other laboratory science) and BIO L101, L102 .....	4	4
BUS 111, 112 Mathematics .....	3	3
BUS 121 Business Environment ..	3	—
BUS 145 Beginning Typewriting ..	—	3
ENG 101-102 Composition and Rhetoric .....	3	3
HIS 103, 104 Introduction to American History .....	3	3
PHE .....	1	—
	<hr/> 17	<hr/> 16

#### *Second Year*

BUS 203-204 Introduction to Accounting .....	3	3
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<sup>2</sup> Requirement may be reduced if the student is exempted from one or more courses by virtue of prior training.

BUS 245 Intermediate Typewriting	3	—
BUS 345 Advanced Typewriting ..	—	3
BUS 360 Information Systems Concepts .....	—	3
ECO 201-202 Principles of Economics .....	3	3
English Elective .....	3	3
PSY 101 General Psychology .....	3	—
Approved Elective .....	3	—
	18	15

Third Year

Accounting Elective .....	3	3
BUS 321 Organization and Management I .....	3	—
BUS 323-324 Legal Environment of Business .....	3	3
BUS 325 Business Communications .....	3	—
BUS 343 Office Machines .....	3	—
BUS 349 Office Procedures .....	—	3
BUS 353 Introduction to Business Teaching .....	3	—
Approved Electives .....	—	6
	18	15

Fourth Year

BUS 438 Office Management .....	3	A	B
BUS 454 Teaching Basic Business Subjects .....	2	—	—
BUS 456 Teaching Typewriting and Clerical Procedures .....	2	—	—
PSY 301, 302, or 305 .....	—	—	3
HEN 385 School and Community Hygiene .....	—	—	3
EDU 486 Supervised Teaching—Secondary <sup>3</sup> .....	—	6	—
SPE 408 Speech for Teachers .....	—	—	3
Approved Electives .....	6	—	—
	13	—	15

Curriculum in Business Education

Area B: Stenography

First Year (Same as Area A on page 161)	Credits	
	1st Sem.	2nd Sem.
Second Year		
BUS 203-204 Introduction to Accounting .....	3	3
BUS 241-242 Beginning and Intermediate Shorthand .....	3	3
BUS 245 Intermediate Typewriting .....	3	—
BUS 345 Advanced Typewriting ..	—	3
BUS 360 Information Systems Concepts .....	—	3

ECO 201-202 Principles of Economics .....	3	3
English Elective .....	3	3
PSY 101 General Psychology .....	3	—
	18	18

Third Year

BUS 320 Fundamentals of Management .....	3	—
BUS 323-324 Legal Environment of Business .....	3	3
BUS 325 Business Communications .....	3	—
BUS 341 Advanced Shorthand and Transcription .....	3	—
BUS 343 Office Machines .....	—	3
BUS 349 Office Procedures .....	—	3
BUS 353 Introduction to Business Teaching .....	3	—
Approved Electives .....	—	6
	15	15

Fourth Year

BUS 454 Teaching Basic Business Subjects .....	2	A	B
BUS 455 Teaching Secretarial Subjects .....	2	—	—
BUS 456 Teaching Typewriting and Clerical Procedures .....	2	—	—
PSY 301, 302, or 305 .....	—	—	3
HEN 385 School and Community Hygiene .....	—	—	3
EDU 486 Supervised Teaching—Secondary <sup>3</sup> .....	—	6	—
SPE 408 Speech for Teachers .....	—	—	3
Approved Electives .....	6	—	—
	12	—	15

Curriculum in Business Education

Area C: Bookkeeping and Data Processing

First Year (Same as Area A on page 161)	Credits	
	1st Sem.	2nd Sem.
Second Year		
BUS 203-204 Introduction to Accounting .....	3	3
BUS 360 Information Systems Concepts .....	—	3
ECO 201-202 Principles of Economics .....	3	3
English Elective .....	3	3
PSY 101 General Psychology .....	3	—
Approved Electives .....	3	3
	15	15

<sup>3</sup> Education 486 may be taken during the first eight weeks (column "A") of either semester of the final year.

<sup>4</sup> A student who is exempt from basic typewriting and shorthand courses because of prior training must substitute electives approved by the advisor.

*Third Year*

BUS 301 Business Statistics .....	3	—
Accounting Elective .....	3	3
BUS 321 Organization and Management I .....	3	—
BUS 323-324 Legal Environment of Business .....	3	3
BUS 325 Business Communications .....	3	—
BUS 343 Office Machines .....	—	3
BUS 353 Introduction to Business Teaching .....	—	3
BUS 361 Systems Analysis .....	3	—
BUS 363 Basic Computer Programming .....	—	2
BUS L463 Programming Lab/COBOL .....	—	1
	18	15

*Fourth Year*

	A	B
BUS 438 Office Management .....	3	—
BUS 453 Teaching Accounting and Data Processing .....	2	—
BUS 454 Teaching Basic Business Subjects .....	2	—
PSY 301, 302, or 305 .....	—	3
HEN 385 School and Community Hygiene .....	—	3
EDU 486 Supervised Teaching—Secondary <sup>3</sup> .....	—	6
SPE 408 Speech for Teachers .....	—	3
BUS 362, 365, or 367 .....	3	—
Approved Electives .....	5	—
	15	15

**Curriculum in Office Administration**

**Major Requirements**

In planning the curricula in office administration, recognition has been given to the fact that secretaries need a broad background in business that encompasses more than shorthand and typewriting skills. In the programs offered in this department, provision is made for students to prepare for the professional positions held by top-level secretaries. The courses offered form a foundation for those who, after the requisite experience, plan to take the Certified Professional Secretary Examination. The following courses, in addition to those prescribed on page 159 constitute the major

requirements for the office administration program leading to the Bachelor of Science degree.

	Credits
BUS 145-245 Beginning and Intermediate Typewriting .....	6
BUS 241-242 Beginning and Intermediate Shorthand .....	6
BUS 341 Advanced Shorthand .....	3
BUS 343 Office Machines .....	3
BUS 345 Advanced Typewriting .....	3
BUS 349 Office Procedures .....	3
BUS 438 Office Management .....	3
	27

**Curriculum in General Secretarial-Degree Requirements**

This two-year program, leading to an Associate in Science degree, is designed to prepare students for secretarial positions in business.

	Credits	
	1st Sem.	2nd Sem.
<i>First Year</i>		
BUS 111 Mathematics .....	3	—
BUS 121 The Business Environment .....	3	—
BUS 145-245 Beginning and Intermediate Typewriting .....	3	3
BUS 203 Introduction to Accounting .....	—	3
BUS 241-242 Beginning and Intermediate Shorthand .....	3	3
ENG 101-102 Composition and Rhetoric .....	3	3
SPE 121 Effective Speech .....	—	3
	15	15

*Second Year*

BUS 323 Legal Environment of Business .....	3	—
BUS 325 Business Communications .....	—	3
BUS 341 Advanced Shorthand .....	—	3
BUS 343 Office Machines .....	3	—
BUS 345 Advanced Typewriting .....	3	—
BUS 349 Office Procedures .....	—	3
ECO 201-202 Principles of Economics .....	3	3
PSY 101 General Psychology .....	3	—
Elective .....	—	3
	15	15

**Curriculum in Legal Secretarial-Degree Requirements**

This two-year program, leading to an Associate in Science degree, is designed to

<sup>3</sup> Education 486 may be taken during the first eight weeks (column "A") of either semester of the final year.

prepare students for secretarial positions in law offices, both public and private.

	Credits	
	1st Sem.	2nd Sem.
<i>First Year</i>		
BUS 111 Mathematics .....	3	—
BUS 121 The Business Environment .....	3	—
BUS 145-245 Beginning and Intermediate Typewriting <sup>4</sup> .....	3	3
BUS 203 Introduction to Accounting .....	—	3
BUS 241-242 Beginning and Intermediate Shorthand <sup>4</sup> .....	3	3
ENG 101-102 Composition and Rhetoric .....	3	3
PSY 101 General Psychology .....	—	3
	15	15
<i>Second Year</i>		
BUS 323-324 Legal Environment of Business .....	3	3
BUS 325 Business Communications .....	3	—
BUS 341 Advanced Shorthand .....	3	—
BUS 343 Office Machines .....	—	3
BUS 345 Advanced Typewriting .....	3	—
BUS 346 Legal Dictation .....	—	3
BUS 349 Office Procedures .....	—	3
ECO 201-202 Principles of Economics .....	3	3
	15	15

### Curriculum in Medical Secretarial-Degree Requirements

This two-year program, leading to an Associate in Science degree, is designed to prepare students for work as assistants or secretaries in doctors' offices, hospitals, and other medical institutions.

	Credits	
	1st Sem.	2nd Sem.
<i>First Year</i>		
BUS 111 Mathematics .....	3	—
BUS 121 The Business Environment .....	—	3
BUS 242-341 Intermediate and Advanced Shorthand <sup>5</sup> .....	3	3
BUS 245-345 Intermediate and Advanced Typewriting <sup>5</sup> .....	3	3

BIO 103-104 Anatomy and Physiology .....	3	3
ENG 101-102 Composition and Rhetoric .....	3	3
	15	15

<i>Second Year</i>		
BUS 203 Introduction to Accounting .....	3	—
BUS 323 Legal Environment of Business .....	3	—
BUS 325 Business Communications .....	—	3
BUS 347 Medical Dictation and Procedures .....	3	—
BUS 349 Office Procedures .....	—	3
CHE 103 Introduction to Modern Chemistry .....	—	3
ECO 201-202 Principles of Economics .....	3	3
PSY 101 General Psychology .....	3	—
BUS 343 Office Machines .....	—	3
	15	15

### ECONOMICS

WILLIAM F. HELLMUTH

Chairman of the Department

Larry G. Beall / Robert T. C. Cone  
 Amy H. Dalton / Clinton S. Ferguson  
 Charles J. Gallagher / William B. Harrison III  
 Harmon H. Haymes / George E. Hoffer  
 George W. Jennings / James R. Marchand  
 Max Moszer / Dennis M. O'Toole  
 Anirejuoritse Sagay / Abdelaleem M. Sharshar  
 Eleanor C. Snellings / James N. Wetzell  
 Jang H. Yoo

The program leading to the B.S. degree in economics offers an introduction to the fundamentals of business and economics, with a concentration in the third and fourth years on methods of economic analysis. The curriculum prepares students for positions in business and government and for graduate study. The department also offers courses in economics to meet the needs of students in other curricula offered by the university.

A program leading to the B.S. in economics is also offered in the School of Arts and Sciences for those students who prefer a liberal arts core curriculum.

A minor in economics is available, provided the student's major department approves. The requirements for the economics minor are listed in the School of Arts and

<sup>4</sup> A student who is exempt from basic typewriting and shorthand courses because of prior training must substitute electives approved by the advisor.

<sup>5</sup> A student who enters without qualifying for BUS 245 Intermediate Typewriting, and BUS 242 Intermediate Shorthand, may complete this program by attending an additional semester or a summer session.

Sciences section with the description for the Arts and Sciences economics major.

### Major Requirements

	<i>Credits</i>
ECO 301 Microeconomic Theory .....	3
ECO 307 Money and Banking .....	3
ECO 407 Macroeconomic Theory .....	3
ECO 499 Senior Seminar in Economics .....	3
ECO Electives .....	12
BUS 302 Business Statistics .....	3
	<hr/> 27

### INFORMATION SYSTEMS

DAVID A. AMEEN

Acting Chairman of the Department

Edwin E. Blanks / J. Howard Bryant

F. Paul Fuhs / Aubrey C. Hudgins, Jr.

William E. Margolis / Edward L. Meharg

Philip L. Pollack / Donald V. Steward

Raymond V. van Wolkenten, Jr.

Albert J. Wynne

The program leading to the Bachelor of Science degree in information systems is designed to prepare students for professional careers in data processing. Through required and elective courses, students will be prepared for positions of programmer, systems analyst, or software analyst. The department also offers courses in information systems to meet the needs of students in other curricula offered by the university.

### Major Requirements

	<i>Credits</i>
BUS 361 Systems Analysis .....	3
BUS 362 Computer Hardware and Software Operations .....	3
BUS 363 Basic Computer Programming .....	2
BUS 463 Programming Laboratory/COBOL .....	1
BUS 365 Systems Design .....	3
BUS 367 Advanced Program Design Techniques .....	3
BUS 461 System Project Planning .....	3
Electives from the following group .....	9
BUS 366 Computerware Analysis .....	3
BUS 462 Control Programming .....	3
BUS 463 Programming and Operations Laboratories .....	1-3
BUS 464 Complex Information Systems ..	3
BUS 466 Computer Performance Analysis ..	3
BUS 467 Current Topics in Information Systems .....	3
BUS 468 Direction and Coordination of Information Systems Organizations ....	3
	<hr/> 27

### Post-Baccalaureate Certificate in Information Systems

The post-baccalaureate certificate in information systems is designed for students who hold bachelor's degrees in fields other than information systems and who desire to continue their education beyond the undergraduate level but do not aspire to a master's degree. Candidates for the certificate are required to complete a total of 30 hours including the courses listed below, or their equivalents, with a minimum of 24 credit hours of study in information systems to be taken at Virginia Commonwealth University with a minimum "C" average. The required courses include: BUS 360, 361, 362, 363, 463 (COBOL), 365, 367, and 461, plus nine hours of approved electives in information systems.

Students acquiring the skills provided in the program should be well received in terms of employment within the business community and with government agencies. Depending upon the particular mix of courses and chosen electives, students should be well prepared to sit for the Certificate in Data Processing and the Registered Professional Programmer Examinations given under the auspices of the Data Processing Management Association.

Applicants to the program should seek information from the Director of Graduate Studies, School of Business, 1015 Floyd Avenue, Richmond, Virginia 23284.

### MARKETING

KENNETH E. MARICLE

Acting Chairman of the Department

Bob R. Ferguson / William R. George

Peter L. Gillett / Richard T. Hise

J. Patrick Kelly / Arnon Perry

Alvin K. Welzel / Leif Widman

The major in marketing is designed to give the student a broad working knowledge of contemporary marketing philosophy and practice. Students working closely with their advisors will be able to choose from a number of available marketing courses those that most closely meet their interests and career aspirations. Graduates of this program will find career opportunities in such fields as marketing management, advertising, sales, marketing research, public

relations, retailing, and management of non-business organizations.

### Major Requirements

	<i>Credits</i>
BUS 309 Marketing in the Changing World ....	3
BUS 476 Marketing Management .....	3
Marketing Electives .....	21
	<hr/> 27

### PROGRAM IN HEALTH CARE MANAGEMENT

The School of Business cooperates with the School of Allied Health Professions in offering the program leading to the degree of Bachelor of Science in health care management. The program goal centers on the preparation of administrators for long-term care facilities. Interested students must apply to the School of Allied Health Professions for admission prior to the beginning of the junior year. School of Business students preparing to apply for admission to the program are advised to follow the course requirements suggested in the freshman and sophomore years of the business program. Inquiries about the program may be addressed to the Chairman, Department of Hospital and Health Administration, School of Allied Health Professions, MCV Station, Richmond, Virginia 23298.

### GRADUATE PROGRAMS IN BUSINESS AND ECONOMICS

MOUSTAFA H. ABDELSAMAD  
Director

The School of Business offers graduate work leading to the degrees of Master of Business Administration, Master of Science in business, and Master of Arts in economics. The programs are designed to prepare candidates for responsible participation in business, industry, government, and education. Details of the program are given in a separate graduate bulletin which will be sent upon request. Write to the Director of Graduate Studies, School of Business, Virginia Commonwealth University, 1015 Floyd Avenue, Richmond, Virginia 23284.

### PREPARATION FOR THE STUDY OF LAW

WALTER S. GRIGGS, JR.  
Department of Business Administration and Management, Advisor  
DENNIS W. JOHNSON  
Department of Political Science, Advisor

Few law schools list specific undergraduate courses as prerequisites for admission. Thus the student who is considering law school education may major in virtually any department in the School of Arts and Sciences, the School of Business, or the School of Community Services. Students, however, are encouraged to obtain a broad liberal arts background with emphasis on the social sciences and English.

The pre-law school advisors maintain continual contact with law school admissions offices and will assist any interested student with questions concerning curriculum, financial assistance, application procedure, or the law school admissions test.

### CENTER FOR BUSINESS AND ECONOMIC DEVELOPMENT

RUSSELL A. JOHNSTON  
Director

The Center for Business and Economic Development has primary responsibility for coordinating all School of Business activities that reach out into the community. The Center is concerned with overall direction of activities of the Management Center, the Virginia Council on Economic Education, the non-credit aspects of the real estate, insurance, and small business programs, and other external activities not directly related to academic degree programs.

### MANAGEMENT CENTER

RAY M. AYRES  
Director  
Benjamin Y. Brown / E. Cofer Loomer  
Kurt E. Olmosk

As a part of the Center for Business and Economic Development, the Management Center provides a continuing link between the university and the business community.

Through its offerings of short courses, seminars, and management conferences, the center works to develop executives for business, industry, and governmental agencies.

The center staff of experienced program planners works with the faculty of the School of Business and outside practitioners to present programs that explore the most advanced academic and professional thinking in various phases of business. These programs may represent the total training effort of an organization or may supplement their internal training. Typical topic areas include:

- Management Principles
- Supervisory Training
- Leadership and Human Relations
- Labor Relations Practice
- Marketing Management
- Data Processing Techniques
- Financial Management
- Women in Management

The courses may be offered in the Management Center's own facilities or can be offered to organizations on an "in-house" basis. Efforts are made to tailor course offerings to meet the needs of specific client groups whenever possible.

Virginia Commonwealth University and the Management Center adhere to program standards recommended by the National Task Force on the Continuing Education Unit. This nationwide system provides a uniform measure of attainment in non-credit educational programs. Continuing Education Units (CEU's) can be earned for participation in many center programs.

## COURSES IN BUSINESS (BUS)

**111/Mathematics 111 Basic Mathematics for the Behavioral, Social, and Management Sciences.** Semester course; 3 lecture hours. 3 credits. Prerequisites: one year of high school algebra and a satisfactory score on the mathematics placement test. Topics include sets, functions, exponents, logarithms, mathematics of finance, matrix algebra, systems of equations, and linear programming.

**112/Mathematics 112 Elements of Calculus for the Behavioral, Social, and Management Sciences.** Semester course; 3 lecture hours. 3 credits. Prerequisites: MAT 101 or BUS/MAT 111. Differential calculus, integral calculus, and probability.

**121 The Business Environment.** Semester course; 3

lecture hours. 3 credits. Concepts and issues in contemporary business.

**145 Beginning Typewriting.** Semester course; 3 lecture hours. 3 credits. Includes the development of skill in typing letters, manuscripts, and simple statistical work. May not be taken for credit by persons who have received credit for as much as two semesters of prior instruction in typewriting at any level, except with permission of the department chairman.

**203-204 Introduction to Accounting.** Continuous course; 3 lecture hours. 3-3 credits. Theoretical and technical facets of financial and managerial accounting for business. Accumulation, analysis, interpretation, and uses of accounting information.

**241-242 Beginning and Intermediate Shorthand.** Continuous course; 3 lecture and 2 laboratory hours. 3-3 credits. A course in shorthand theory and dictation with an introduction to transcription. BUS 241 may not be taken for credit by persons who have received credit for two semesters of prior instruction, and BUS 242 may not be taken for credit by persons who have received credit for four semesters of prior instruction, except with permission of the department chairman.

**245 Intermediate Typewriting.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 145. Includes development of typewriting speed and accuracy and the application of typewriting to business papers. May not be taken for credit by persons who have received credit for as much as four semesters of prior instruction in typewriting at any level, except with permission of the department chairman.

**301-302 Business Statistics.** Continuous course; 3 lecture hours. 3-3 credits. Prerequisites: BUS 111-112 or MAT 111-112. Statistical methods employed in the analysis of business and economic data and applications in decision making. First semester: index numbers, time series analysis, descriptive measures, probability, sampling, and hypothesis testing. Second semester: nonparametric methods, regression and correlation, analysis of variance, decision theory; emphasis on problem formulation and interpretation.

**303-304 Financial Accounting I and II (Intermediate).** Continuous course; 3 lecture hours. 3-3 credits. Prerequisite: BUS 204. Theoretical standards and procedures for accumulating and reporting financial information about business. Classification, valuation, and timing involved in determination of income and asset/equity measurement.

**308 Introduction to Marketing.** Semester course; 3 lecture hours. 3 credits. An introduction to the activities involving the exchange of goods, services, and ideas for the satisfaction of human wants. Marketing is examined as it relates to the other functions of the organization, to consumers, and to society.

**309 Marketing in the Changing World.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 308. A study of the uncontrollable forces which shape the markets in which firms operate. Includes consideration of the social, political, legal, technological, and



economic environments and emphasizes the challenges and opportunities confronting marketing managers as they adapt to change.

**311 Financial Management.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 204. Principles of optimal financial policy in the procurement and management of wealth by profit-seeking enterprises; the application of theory to financial decisions involving cash flow, capital structure, and capital budgeting.

**315 Personal Finance.** Semester course; 1-3 lecture hours, 1-3 credits. Designed to assist families and individuals in making complex financial decisions. Units include income and expenditure, credit, borrowing, banking, savings, insurance, home buying, investment, and estate planning. May not be taken for degree credit by School of Business majors.

**321-322 Organization and Management I and II.** Continuous course; 3 lecture hours. 3-3 credits. Integration of management and behavioral science principles, techniques, and concepts associated with the productivity of organizational resources. How managerial actions are contingent upon the dynamic environment of modern organizations. First semester: introduction to management, human behavior in organizations, directing, organizing. Second semester: planning, control, organizational growth and development.

**323 Legal Environment of Business.** Semester course; 3 lecture hours. 3 credits. Basic legal concepts applicable to business including the legal aspects of operating a business, contracts, employment relationships, sales, bailments, and commercial paper.

**324 Legal Aspects of the Management Process.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 323 or permission of instructor. Legal aspects of partnerships and corporations; management rights, powers, and responsibilities.

**325 Business Communications.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ENG 101-102. The solution of representative business problems through the writing of letters and reports.

**326 Real Estate Law.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 323, equivalent, or permission of instructor. Provides an understanding of legal fundamentals of the real estate field.

**331 Personnel Management.** Semester course; 3 lecture hours. 3 credits. Prerequisites: BUS 321 or permission of instructor. Basic problems of employment, selection, and placement; wage levels and methods; job studies and descriptions; training methods and programs; and employee rating systems.

**333 Risk and Insurance.** Semester course; 3 lecture hours. 3 credits. Nature of risk; insurance and other methods of dealing with risk; life and health, and property and liability insurance; insurance as institution.

**340 Operations Management.** Semester course; 3 lecture hours. 3 credits. Prerequisites: BUS 301 and 322 or permission of instructor. Analyzes the operational

problems of organizations; process analysis, man-machine interfaces, work measurement, work sampling standards, layouts, scheduling, and quality control.

**341 Advanced Shorthand and Transcription.** Semester course; 3 lecture and 2 laboratory hours. 3 credits. Prerequisites: BUS 242 and 345 or equivalent. This course develops dictation speeds from 90 to 120 words a minute and transcription speeds from 20 to 30 words a minute.

**343 Office Machines.** Semester course; 5 laboratory hours. 3 credits. Designed to acquaint the student with all types of office machines and their appropriate use in business organizations of different sizes as well as to develop skill in the use of these machines.

**345 Advanced Typewriting.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 245 or equivalent. Students develop maximum typewriting speed and accuracy for sustained periods of time. Advanced typewriting problems and production speed are emphasized.

**346 Legal Dictation and Transcription.** Second semester; 3 lecture hours. 3 credits. Prerequisite: BUS 341. This course includes the learning of a legal vocabulary and the taking and transcribing of legal dictation. The course is designed for secretarial students who desire specialized training in the legal field.

**347 Medical Dictation and Office Procedures.** First semester; 3 lecture hours. 3 credits. Prerequisite: BUS 341. Medical vocabulary, dictation, and office procedures for secretaries.

**349 Office Procedures.** Semester course; 3 lecture hours. 3 credits. Designed for secretarial students to provide a knowledge of duties and correct office procedures required by an efficient business organization.

**353 Introduction to Business Teaching.** Semester course; 3 lecture hours. 3 credits. Provides a detailed examination of the principles and problems of business education on the secondary level.

**360 Information Systems Concepts.** Semester course; 3 lecture hours. 3 credits. Designed to introduce students to concepts and procedures involved in the development and use of automated information systems. Covers computers and programming concepts, the system development process, and areas of system application.

**361 Systems Analysis.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 301 and 360 or permission of instructor. Develops ability to analyze an organization's existing information processes. Covers organization, work, and information flow analysis, data collection, process modeling, and techniques for analysis and presentation.

**362 Computer Hardware and Software Operations.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 360. Pre- or co-requisites: BUS 363 and 463 (Assembler) or permission of instructor. Describes and develops concepts and principles of operation of

computer hardware and software and communications systems.

**363 Basic Computer Programming.** Semester course; 2 lecture hours. 2 credits. Prerequisite: BUS 360, must be taken simultaneously with BUS 463 (COBOL). Introduction to the basic concepts of computer program design, including data structures, fundamental operations on data structures, and algorithmic structures.

**365 System Design.** Semester course; 3 lecture hours. 3 credits. Prerequisites: BUS 361 and 367. Study and practice of design techniques required in the development of automated information systems. On completion, the student is expected to be able to perform all common system design techniques.

**366 Computerware Analysis.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 362. Surveys the performance characteristics of representative computer and related software systems, of communications systems, and of peripheral equipment which may be considered in systems design and for installation planning.

**367 Advanced Program Design Techniques.** Semester course; 3 lecture hours. 3 credits. Prerequisites: BUS 363 or permission of instructor. Pre- or co-requisite: BUS 362. Stresses relation of data structure with algorithm structure. Assignments use contemporary file processing environments.

**370 Promotional Strategy.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 308. Focuses on the behavioral science approach to personal and nonpersonal communication. The concept of the promotion mix and its role in the marketing mix is stressed.

**371 Elements in Advertising Strategy.** Semester course; 3 lecture hours. 3 credits. Prerequisites: BUS 308 required. Business 370 recommended. Overviews the various steps in the development of an advertising strategy. Special stress placed on the study of the creative philosophies and work of leading advertising agencies.

**372 Product Strategy.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 308. Introduction to basic product strategy, focusing on new product development, management of existing products, and elimination of marginal offerings. Various concepts will be addressed including market segmentation, product differentiation, the product life cycle, and the marketing mix.

**373 Consumer Behavior.** Semester course; 3 lecture hours. 3 credits. Prerequisites: BUS 308; PSY 201 and SOC 101 recommended. Study of the relevant psychological, sociological, and anthropological variables that shape activity and motivation. Throughout course, students consider the issue of why consumers behave as they do in the marketplace.

**374 Marketing Research: Designs.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 308. Concepts in the development and evaluation of re-

search designs for gathering marketing information. Students develop a finished research proposal.

**375 Marketing Research: Applications.** Semester course; 3 lecture hours. 3 credits. Prerequisites: BUS 308 and 374. BUS 302 recommended. A continuing study of marketing research methodology in a workshop atmosphere. Students carry out professional caliber research projects.

**376 Dynamics of Retail Management.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 308. A comprehensive view of retailing and an application of marketing concepts in a practical retail managerial environment. Students learn to evaluate retail firms and to identify their strengths and weaknesses.

**377 Channel Systems.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 308. Concerns the development, complexities, benefits, and pitfalls of channel of distribution systems.

**378 Consumer Issues and Problems.** Semester course; 3 lecture hours. 3 credits. Study of the past, present, and future directions of consumerism. The course investigates the challenges and opportunities of consumerism for both business and government.

**379 Marketing to the Black Community.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 308. In depth exposure to current issues and opportunities involving black participation in the contemporary marketplace.

**401 Cost Accounting.** First semester; 3 lecture hours. 3 credits. Prerequisite: BUS 204. Cost accumulation for inventory pricing and income determination. Cost behavior concepts for planning and control. Job order and process cost systems, standard costs and budgeting.

**402 Managerial Cost Accounting.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 401. Special topics in relevant costs for decision-making, planning and control, including applications of operations research and statistics.

**404 Financial Accounting III (Advanced).** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 304. Financial accounting for complex business relationships, including home office-branch accounting, business combinations, consolidated financial statements, investments, and intangible assets.

**405 Tax Accounting.** First semester; 3 lecture hours. 3 credits. Prerequisite: BUS 204. Income tax legislation and the concept of taxable income; federal income tax law applicable to individuals.

**406 Auditing.** First semester; 3 lecture hours. 3 credits. Prerequisite: BUS 304. Auditing standards, professional ethics, audit programs and working papers, internal control, and statements on auditing standards.

**407 Auditing Methods.** Second semester; 3 lecture hours. 3 credits. Prerequisites: BUS 406, 301, and 360.

Application of auditing procedures such as auditing through, with, and around the computer; application of advanced statistical sampling plans to auditing problems for independent as well as internal auditors.

**408 CPA Problems.** Second semester; 3 lecture hours. 3 credits. Prerequisites: BUS 404, 406, and 323. An intensive study of the theory and practice of accounting and auditing through solution and discussion of Uniform CPA Examination problems.

**409 Governmental Accounting.** First semester; 3 lecture hours. 3 credits. Prerequisite: BUS 204. Introduction to fund accounting, with emphasis on those concepts applicable to state and local governmental agencies.

**410 Advanced Tax Accounting.** Second semester; 3 lecture hours. 3 credits. Prerequisite: BUS 405. Complex tax problems of the trust, partnership, and corporation. Particular emphasis is given to tax planning.

**411 Accounting Opinions and Standards.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 304. A technical course concerned with pronouncements of the public accounting profession. The course objective is to familiarize students with present and proposed accounting opinions and standards.

**413 Managerial Accounting.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 203-204. The attention-directing and problem-solving functions of accounting in relation to current planning and control, evaluation of performance, special decisions, and long-range planning. Restricted to students who have not completed BUS 401-402 or the equivalent.

**414 Accounting Concepts.** Second semester; 3 lecture hours. 3 credits. Prerequisite: BUS 304. Capstone course in financial accounting theory, with emphasis on the needs of the users of financial accounting information.

**415 Investments.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 203 or permission of instructor. A survey of investment principles and practice. Emphasis is given to problems of security analysis and portfolio management.

**417 Cases in Financial Management.** Second semester; 3 lecture hours. 3 credits. Prerequisite: BUS 311. Cases involving financial decisions for various forms of business enterprises.

**418 International Business Administration.** Second semester; 3 lecture hours. 3 credits. Prerequisite: BUS 322 or permission of instructor. The legal, marketing, management, financial, and cultural aspects of international business from the standpoint of the manager of the U.S. firm.

**419 Case Studies in Federal Income Taxation.** Second semester; 3 lecture hours. 3 credits. Prerequisite: BUS 405. Tax problems of corporate liquidations, corporate reorganizations, collapsible corporations, and corporate capital structure.

**420 Seminar in Industrial Relations.** Second semester;

3 lecture hours. 3 credits. Prerequisite: BUS 331 or permission of instructor. Managerial decision-making in labor-management relationships; the collective bargaining process and the administration of labor agreements; the impact of public policy and labor legislation.

**421 Small Business Management.** Semester course; 3 lecture hours. 3 credits. The importance, problems, and requirements of small businesses; establishing policies for prices, promotion, control, and credit; regulations, taxes, records, and record keeping.

**422 Principles of Real Estate.** Semester course; 3 lecture hours. 3 credits. Principles and practices of real estate development, financing, brokerage, appraisal, legal instruments, and federal housing policies.

**423 Real Estate Brokerage.** Semester course; 3 lecture hours. 3 credits. Considers administrative principles and practices of real estate brokerage, financial control and marketing of real property.

**424 Property and Liability Insurance.** Second semester; 3 lecture hours. 3 credits. Prerequisite: BUS 333 or permission of instructor. Study of coverage and rating in the following areas of insurance: fire, marine, automobile, general liability, workmen's compensation, theft, and fidelity; and study of surety bonds.

**425 Real Estate Appraisal.** Second semester; 3 lecture hours. 3 credits. Designed for persons who have completed a course in principles of real estate, its equivalent, or had experience in the real estate appraisal field. Neighborhood and site analysis, cost, market, and income approaches. Qualified students may apply to write AIREA Examination IA at the end of this course.

**426 Life and Health Insurance.** Second semester; 3 lecture hours. 3 credits. Study of the function and uses of life insurance, health insurance, and annuities; and study of the Social Security System.

**427 Labor Law and Legislation.** First semester; 3 lecture hours. 3 credits. Prerequisite: BUS 323 or permission of instructor. A comprehensive review of labor law and legislation applicable to business.

**429 Real Estate Finance.** First semester; 3 lecture hours. 3 credits. Prerequisite: BUS 422 or permission of instructor. Instruments, techniques, and institutions of real estate finance; sources of funds; the mortgage market; mortgage risk analysis; creative financing; emphasis on typical policies and procedures used in financing residential, industrial, and commercial properties, including commercial leasing.

**430 Social Insurance.** Second semester; 3 lecture hours. 3 credits. Societal and individual financial problems encountered as the result of disability, unemployment, aging, and death. Insurance solutions through governmental and private techniques.

**431 Advanced Real Estate Appraisal.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 425 or similar introductory appraisal course or permission of instructor. Income capitalization; investor analysis; mortgage-equity capitalization. SREA Examination may be written upon completion.

**433 Job Evaluation.** Semester course; 3 lecture hours. 3 credits. The methods and techniques of obtaining job descriptions, job characteristics and measuring scales, job rating, and the awarding of wage increments.

**434 Policy Determination.** Semester course; 3 lecture hours. 3 credits. Capstone course normally taken in final senior semester. Analysis of complex policy problems at the overall management level, involving such functional areas as production, finance, and marketing, in context with the economic, political, and social environment.

**435 Seminar in Personnel Management.** First semester; 3 lecture hours. 3 credits. Prerequisite: BUS 331 or permission of instructor. A critical study of selected problems in personnel management.

**436 Case Analysis of the Small Firm.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 421 or permission of instructor. Analysis of an on-going business. Students are actively involved in counseling existing small firms on specific problem areas. Various strategies for success are explored and factors in entrepreneurial competency are discussed.

**437 Funds Management in Financial Institutions.** Second semester; 3 lecture hours. 3 credits. Funds management techniques for selected financial institutions including investment companies (mutual funds), life and casualty insurers, savings and loans, mutual savings banks, commercial banks, pension funds.

**438 Office Management.** Semester course; 3 lecture hours. 3 credits. The planning and installing of correct office methods and systems; securing effective correspondence and stenographic work; improving mailing, filing, and duplicating methods; preparation of reports; office problems of special departments; and employee supervision and control.

**439 Legal Office Internship.** Both semesters; 3 credits. Prerequisite: senior standing in office administration or business education. Provides opportunities to observe and participate in a variety of legal office procedures. Work must be performed in an approved legal office under the supervision of a faculty member.

**440 Problems in Production/Operations Management.** Spring semester; 3 lecture hours. 3 credits. Prerequisite: BUS 340 or permission of instructor. In depth analysis of specific issues in operations management. Topics which may be included are: human factors, job design, and measurement of work; forecasting, planning, scheduling, inventory controls, network analysis; reliability and quality control.

**443, 444 Specialized Office Machines I and II.** Semester courses; 1 lecture and 2 laboratory hours. 2, 2 credits. Machines which a student can learn to operate include: electric typewriters, adding and calculating machines, ten-key calculating machines, stencil duplicators, offset duplicators, fluid duplicators, book-keeping machines, dictating, and transcribing machines.

**448, 449 Professional Secretarial Training.** Semester courses; 3 lecture hours. 3, 3 credits. Designed for

secretaries who desire to broaden their educational background. Special emphasis is placed on accounting, business administration, human relations, personal adjustment, general secretarial and office procedures, letter composition, and public speaking. The year course will serve as partial preparation for the Certified Professional Secretary examination given each May by the National Secretaries Association.

**453 Teaching Accounting and Data Processing.** Second semester; 2 lecture hours. 2 credits. Designed for prospective teachers of accounting, business mathematics, and data processing. Examines content, methods of teaching, and resource materials currently available.

**454 Teaching Basic Business Subjects.** First semester; 2 lecture hours. 2 credits. Designed for prospective teachers of general business, business law, consumer economics, personal finance. It examines content, methods of teaching, and resource materials currently available.

**455 Teaching Secretarial Subjects.** Second semester; 2 lecture hours. 2 credits. Designed for prospective teachers of shorthand, transcription, and office practice. It examines content, methods of teaching, and resource materials currently available.

**456 Teaching Typewriting and Clerical Procedures.** First semester; 2 lecture hours. 2 credits. Designed for prospective teachers of typewriting and clerical procedures. It examines content, methods of teaching, and resource materials currently available.

**461 System Project Planning.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 365. Concentrated study of planning methods and techniques required for information systems projects. On completion, students should be able to apply knowledge of systems analysis and programming to plan and carry out a complete systems project.

**462 Control Programming.** Semester course; 3 lecture hours. 3 credits. Prerequisites: BUS 367 and 463 (Assembler). Study of operating, file management, and I/O systems. Designed to prepare students to work with software which controls and coordinates asynchronous and parallel processes.

**463 Programming Laboratories (Operations; COBOL; Assembler; FORTRAN/PL-1; Advanced Programming; Simulation).** Semester course; 3 laboratory hours. 1 credit each section. Prerequisites: BUS 363 or equivalent. Permission of department chairman required for more than three credits. A group of laboratory courses in which the student will study a particular programming language or subject and perform exercises and problems under supervision.

**464 Complex Information Systems.** Semester course; 3 lecture hours. 3 credits. Pre- or co-requisite: BUS 365 or permission of instructor. Designed to prepare students for development of systems involving integrated data bases, data base management, software, and communications processes.

**466 Computer Performance Analysis.** Semester course; 3 lecture hours. 3 credits. Prerequisites: BUS

301, 366, and 367 or permission of instructor. Introduces and develops ability to devise performance measures (and analyses) for optimally configuring and balancing computer systems. Involves lectures, discussions, and applied problem assignments and software.

**467 Current Topics in Information Systems.** Semester course; 3 lecture hours. 3 credits. Pre- or co-requisite: BUS 461 or permission of instructor. Investigation and discussion of current topics or special projects in information systems.

**468 Direction and Coordination of Information Systems Organizations.** Semester course; 3 lecture hours. 3 credits. Pre- or co-requisite: BUS 461 or permission of instructor. A study of management techniques as applied to direction and coordination of information systems personnel and organizations. Involves readings, group discussion, and case study/assignments.

**472 Trends in Retailing.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 308. BUS 376 recommended. An examination of current and developing trends that will affect the future posture of retailing.

**473 Marketing for Non-Business Organizations.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 308 or permission of instructor. Stresses the application of marketing for non-business organizations such as hospitals, museums, universities, and police departments. Students participate in the research for and development of a marketing plan for an actual non-business organization in the Richmond area.

**475 Field Consulting In Marketing.** Semester course; 3 lecture hours. 3 credits. Prerequisite: permission of instructor. Students apply their knowledge in marketing to the resolution of actual problems facing a Richmond firm.

**476 Marketing Management.** Semester course; 3 lecture hours. 3 credits. Prerequisite: restricted to senior-level marketing majors. A case course requiring the senior marketing student to apply his knowledge to the solving of marketing managerial problems.

**477 Topic Seminar in Marketing.** Semester course; 3 lecture hours. 3 credits. Maximum total of 6 credits. Prerequisite: BUS 308. In depth treatment within a seminar format of a timely topic within marketing. The topic will vary from semester to semester.

**478 Honors Course in Marketing.** Semester course; 3 lecture hours. 3 credits. Prerequisite: for marketing majors by invitation only. The experiences for the course will be determined by the students after the course convenes.

**479 Marketing Internship.** Semester course; 3 credits. Prerequisite: marketing majors only and permission of instructor. Intention to enroll must be indicated to the instructor prior to or during advance registration for semester of credit. Involves students in a meaningful experience in marketing and supplementary businesses.

**487 Management Decision Methods.** Semester course;

3 lecture hours. 3 credits. Prerequisite: BUS 301 or its equivalent. Quantitative and non-quantitative techniques for solving organizational problems. Includes decision-making, operations problem solving, linear programming, scheduling, queueing, forecasting, and inventory control.

**488 Topics in Management Science.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 301 and 487 or permission of instructor. Integrates and applies prior instruction in management science. Provides an opportunity for gaining experience with quantitative methods in applied management. Such topics as computer simulation, mathematical programming, and reliability and quality control may be offered.

**491-492 Independent Study.** Semester course; 1-3 credits. Maximum total of 3 credits. Prerequisites: junior or senior standing as a major in a business curriculum, approval of advisor and department chairman prior to registration. Intensive study under supervision of a faculty member in an area not covered in depth or contained in the regular curriculum.

**493 Insurance Law.** Semester course; 3 lecture hours. 3 credits. A study of the legal concepts and doctrines applicable to the field of insurance. Basic legal problems of the principal branches of insurance are dealt with including fire, marine, casualty, and life insurance.

**499 Management Seminar.** Semester course; 3 lecture hours. 3 credits. Prerequisite: senior standing in business management or permission of instructor. A critical analysis of management concepts.

For the listing of graduate courses in the School of Business, see the School of Business Graduate Bulletin.

## COURSES IN ECONOMICS (ECO)

**201-202 Principles of Economics.** Continuous course; 3 lecture hours. 3-3 credits. A course designed to acquaint the student with a theoretical and practical understanding of the economic institutions and problems of the American economy.

**203 Introduction to Economics.** Semester course; 3 lecture hours. 3 credits. A survey of economic principles, institutions, and problems in the United States. The course is designed to provide basic economic understanding for students who do not expect to take additional economics courses.

**301 Microeconomic Theory.** First semester; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. Analysis of value and distribution. Supply and demand, theory of the firm, competition and monopoly. Determination of prices and wages in a market economy.

**303 Theory of the Firm.** Semester course; 3 lecture hours. 3 credits. Prerequisites: ECO 201-202 and BUS 111-112. This course is designed to show the importance of economic techniques to the prospective manager of a modern enterprise. The student learns the choice criteria of production and sales processes and



the substitutability of inputs and outputs. It explores the effects of rival firms, changing social and business institutions, and technological change on current and past decision criteria.

**305 Public Finance—State and Local.** Second semester; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. A description and analysis of state and local government taxing and spending policies and practices. The course is designed to develop an understanding of state and local fiscal operations and their relationship with federal fiscal operations.

**306 Public Finance—Federal.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. A survey of the principles, practices, and problems of federal finance; the nature and growth of federal expenditures; the nature and effect of various types of federal taxes; fiscal policy and administration; the public debt and its impact on the economy.

**307 Money and Banking.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. A study of money, its nature, its issuance, and its control. Emphasis is on the institutional aspects of our monetary structure, especially the role of the banking system in the creation of money and of the Federal Reserve System in the control of the money supply.

**308 Economic Geography.** Second semester; 3 lecture hours. 3 credits. A study of the world's important agricultural and mineral resources dealing principally with factors controlling regional distribution, production, transportation, and consumption.

**310/Afro-American Studies 310 Economics and Poverty.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202 or 203. A study of the economic problems of low-income groups and agency and foundation programs designed to encounter these problems.

**313 Economics of Transportation.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. An economic analysis of the transportation industry with special emphasis on the problems of regulation, public policy, and urban transportation.

**315 Economic Development.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. An introduction to the process of economic development including a survey of development theory and a study of the experience of both underdeveloped and developed countries. Economic policies and tools of economic planning for stimulating development and obstacles to development will be presented.

**317/Afro-American Studies 317 Money and Banking in the Black Financial Community.** Second semester; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. Money and banking blended with the problems of black finance. The course is acceptable as a substitute for ECO 307.

**319/History 377 Economic History of the United States.** Second semester; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. An analysis of the developmental

factors from the American colonial period to the present. Includes quantitative research topics in American economic history.

**320 Economic History of Europe.** First semester; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202 or 203. Studies of the origins and development of modern capitalistic economies with emphasis on transitional factors and institutional changes.

**321/Urban Studies 321 Urban Economics.** First semester; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202 or 203 and URS 303. An introduction to urban economics, with an emphasis on the economics of agglomeration and the role of externalities in the urban economy. Economic analysis of the provision of urban public services and urban public financing, especially in politically fragmented areas.

**329 International Economics.** Second semester; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. An analysis of economic and political influences on exports and imports, balance of payments, foreign investment, exchange rates, and international monetary systems.

**401 Introduction to Econometrics.** First semester; 3 lecture hours. 3 credits. Prerequisites: ECO 201-202 and BUS 301. Sources and uses of economic data; includes the application of statistical methods and regression analysis to time series and cross section data to test hypotheses of micro and macro economics.

**402 Business Cycles and Forecasting.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. An examination of the cyclical variations in economic activity; the measurement of economic fluctuations; analysis of business cycle theory; control of business cycles; stresses modern forecasting techniques.

**403 Introduction to Mathematical Economics.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BUS 112 or MAT 204 and ECO 201-202. The application of mathematical techniques to economic theory and economic models.

**405 Managerial Economics.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. The application of economic analysis to managerial decision-making in relation to problems of supply and demand, prices, profits, production, and distribution. Special emphasis on the role of competition in decision making.

**407 Macroeconomic Theory.** Second semester; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. A general survey of national income analysis and macroeconomic theory. Detailed study of public policies affecting price levels, employment, economic growth, and the balance of payments.

**412 Regional Economics.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. A course to familiarize students with sources and uses of standard data on employment, income, and population and to provide an introduction to economic base theory as used in regional economics. Application of theory to

make and analyze economic and demographic projections for regions in Virginia. Analysis of operation and impact of area economic development programs.

**421 Government and Business.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. Designed primarily to study the many ways in which business and economic life are directed by government. Topics covered include the economics of monopoly power; the antitrust laws, and their application and enforcement.

**431 Labor Economics.** First semester; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. The objective of this course is to acquaint the student with the nature and causes of labor-management problems in the United States. Subjects included are the historical background of labor movements, theories of labor

movements, wage theories, theories of employment, labor legislation, and collective bargaining.

**432 Manpower Economics.** Semester semester; 3 lecture hours. 3 credits. Prerequisite: ECO 201-202. Considers supply features of the labor market. Emphasis upon evaluating existing federal manpower programs and the effectiveness of manpower and training strategies designed to increase employment.

**499 Senior Seminar in Economics.** Second semester; 3 lecture hours. 3 credits. Enrollment by consent of instructor. Papers on current research of guests, faculty, and enrolled students. Analysis of current economic problems on advanced level.

For the listing of graduate courses offered by the Department of Economics, see the graduate bulletin for the School of Business.



## PART IX—School of Community Services

DAVID L. AMES

Acting Dean

GEORGE R. JARRELL

Assistant Dean

The School of Community Services aims to produce a broadly educated person imbued with a sense of social responsibility and prepared through study, research, and field experience to perform competently both as a citizen and as a professional, providing human services in a complex urban environment.

### UNDERGRADUATE PROGRAMS

The school offers a Bachelor of Science degree in the fields of:

Administration of Justice and Public  
Safety  
Recreation  
Rehabilitation Services  
Urban Studies

### GRADUATE PROGRAMS

The School of Community Services offers graduate programs leading to the Master of Science in rehabilitation counseling (M.S.), Master of Science in administration of justice (M.S.), Master of Urban and Regional Planning (M.U.R.P.), and Master of

Public Administration (M.P.A.). Detailed information is available in the graduate bulletins available in the dean's office.

### GENERAL GRADUATION REQUIREMENTS

All students in the School of Community Services must fulfill these requirements:

1. Grade Point Average. A grade point average (GPA) of at least 2.0 (a "C" average) is required for all credits presented for graduation for the bachelor's degree. (Only credits taken at VCU are computed in the GPA.) A student need present for graduation only those credits which fulfill Academic Campus, school, and major requirements, and together constitute a 2.0 average, even though the student's GPA for all credits attempted at VCU may be less than a 2.0 average.
2. Total Credits. A minimum of 123 semester credits is required for completion of the Bachelor of Science degree in the School of Community Services.
3. Major Concentration. A grade point average (GPA) of at least 2.0 (a "C" average) is required for all credits in the student's major presented for graduation. A student need present for graduation only those credits which fulfill the student's major, and together constitute a 2.0 average, even though the student's GPA for all credits attempted at VCU in the student's major may be less than a 2.0 average. Students may not present more than 45 semester hours in the major, except by permission of department chairman.
4. Upper Level Courses. A minimum of 45 credits is required in 300 and 400 level courses for a bachelor's degree. Credits transferred from two-

year institutions may not be used to fulfill this requirement.

- 5. Last 30 Credits. Degree candidates are required to complete the last 30 credits at this institution for the bachelor's degree.

FRESHMAN-SOPHOMORE CORE CURRICULUM

All students seeking baccalaureate degrees offered by the School of Community Services are required to fulfill the following two-year core curriculum.

	Credits	
	1st Sem.	2nd Sem.
First Year		
CSE 115, 116 The American City .	3	3
ENG 101-102 Composition and Rhetoric . . . . .	3	3
MAT 111/BUS 111 Basic Mathematics for Behavioral, Social, and Management Sciences . . . . .	3	—
Electives in the Humanities <sup>1</sup> . . . . .	—	3
Electives in the Social Sciences <sup>1</sup> . . . . .	3	3
Electives . . . . .	3	3
	15	15
Second Year		
CSE 241-242 Methods of Community Analysis . . . . .	3	3
ECO 201-202 Principles of Economics or POS 101, 102 American Government . . . . .	3	3
PHI 221 Informal Logic or PHI 222 Formal Logic . . . . .	3	—
Physical Sciences <sup>1</sup> . . . . .	3	3
Departmental Courses or Electives . . . . .	3	6
	15	15

DEPARTMENTAL SURVEY COURSES

- CSE 251 Survey of the Administration of Justice
- CSE 252 Introduction to the Juvenile Justice System
- CSE 253 Introduction to Corrections
- CSE 261 Recreation in Modern Society
- CSE 291 Introduction to Rehabilitation Services

STUDENT ADVISING

Students entering the School of Community Services will be assigned a faculty advisor in the department of their major. Students who have not made a decision concerning their major will be assigned

faculty advisors by the assistant dean, Room 121, in the Old Gymnasium. Any student requiring help concerning a change of major and advising during advance registration periods should contact the assistant dean.

ADMINISTRATION OF JUSTICE AND PUBLIC SAFETY

- JAMES D. STINCHCOMB  
Chairman of the Department
- Raymond P. Cienek / James L. Hague
- Leonard J. Hippchen / Kenneth R. McCreedy
- James P. Morgan, Jr. / Ronald J. Scott
- E. Preston Sharp / Darryl K. Sheley
- Marshal H. Whithed
- Part-time—John J. Birdsell/ John T. Hanna
- Michael Morchowder / Matthew N. Ott
- Robert C. Phelps / James B. Wilkinson

The major objective of this program is to prepare men and women for professional careers in the areas of public safety and administration of justice. In addition to the many new opportunities in federal, state, and local public safety, the student may choose to study for a career in industrial security, correctional rehabilitation, criminalistics, or traffic safety. He may decide also to pursue graduate study in law, higher education, criminal justice planning, or several human services related to the administration of justice. Additionally this program offers the inservice criminal justice employee the opportunity to enhance his professional development through further higher education.

Students majoring in administration of justice and public safety receive a broad educational background as well as professionally oriented courses in their special area of concentration. Currently the areas of concentration available include police planning and management, corrections, juvenile justice, and highway and traffic safety. Upon completion of a minimum of 123 semester hours, the student is awarded the Bachelor of Science degree in administration of justice and public safety.

Administration of justice and public safety (AJPS) majors enrolled within the School of Community Services Core Program are required to complete AJP 260. In addition, majors must select two of the

<sup>1</sup>Lists of courses recommended for this requirement are available from departmental advisors.

following three courses: CSE 251, 252, or 253.

AJP 324, 380, 480, and 390 or 491 are required of all majors. (AJP 325 may be substituted for 324.)

In addition, 12 semester hours in upper-division cognate courses, approved by the advisor, are required within each department option. Other university departments acceptable as cognates for AJPS majors include: business administration/management, education, political science, psychology, recreation, rehabilitation services; sociology, social welfare, and urban studies. Cognate courses may come from more than one department.

### Minor in Administration of Justice and Public Safety

Select one course from each of the following groups: Group I - CSE 251, 252, 253. Group II - AJP 260, 324, 325. The additional twelve hours are to be upper division AJP courses agreed upon by the student and a faculty advisor in this department.

### Option in Police Planning and Management

	Credits	
	1st Sem.	2nd Sem.
<i>Third Year</i>		
AJP 324 Courts and the Judicial Process .....	3	—
AJP 360 Comparative Law and Criminal Responsibility .....	—	3
AJP 342 Public Safety in the Changing Community .....	3	—
AJP 355 Trends in Justice Administration .....	—	3
AJP 431 Criminal Justice: Management Concepts .....	3	—
AJP 432 Criminal Justice: Organizational Dynamics .....	—	3
Cognate <sup>1</sup> .....	3	3
Electives .....	3	3
	15	15
<i>Fourth Year</i>		
AJP 380 Criminal Justice Research .....	3	—
AJP 475 Case Studies in Evidence .....	—	3
AJP 480 Seminar: Critical Issues in Criminal Justice .....	—	3
AJP 390 Criminal Justice Field Internship .....	3-6	—
or		
AJP 491 Directed Individual Study .....	—	3
Cognate <sup>1</sup> .....	3	3
Electives .....	6	3
	15-18	15

### Option in Corrections

	Credits	
	1st Sem.	2nd Sem.
<i>Third Year</i>		
AJP 324 Courts and the Judicial Process .....	3	—
AJP 352 Crime and Delinquency Prevention .....	3	—
AJP 363 Correctional Law .....	—	3
AJP 380 Criminal Justice Research .....	—	3
AJP 431 Criminal Justice: Management Concepts .....	3	—
AJP 432 Criminal Justice: Organizational Dynamics .....	—	3
Cognate <sup>1</sup> .....	3	3
Electives .....	3	3
	15	15
<i>Fourth Year</i>		
AJP 451 Correctional Administration .....	3	—
AJP 455 Community-Based Correctional Programs .....	3	—
AJP 460 Evaluation and Treatment of the Offender .....	—	3
AJP 480 Seminar: Critical Issues in Criminal Justice .....	3	—
AJP 390 Criminal Justice Field Internship .....	3-6	—
or		
AJP 419 Directed Individual Study .....	—	3
Cognate <sup>1</sup> .....	3	3
Electives .....	3	6
	18	15

### Option in Juvenile Justice

	Credits	
	1st Sem.	2nd Sem.
<i>Third Year</i>		
AJP 325 Juvenile Justice Law and Process .....	3	—
AJP 352 Crime and Delinquency Prevention .....	—	3
AJP 380 Criminal Justice Research .....	3	—
AJP 431 Criminal Justice: Management Concepts .....	3	—
AJP 452 Juvenile Justice Administration .....	—	3
Cognate <sup>1</sup> .....	3	3
Electives .....	3	6
	15	15
<i>Fourth Year</i>		
AJP 455 Community-Based Correctional Programs .....	3	—
AJP 460 Evaluation and Treatment of the Offender .....	—	3
AJP 390 Criminal Justice Field Internship .....	3-6	—
or		
AJP 491 Directed Individual Study .....	—	3

AJP 480 Seminar: Critical Issues in Criminal Justice .....	—	3
Cognate <sup>1</sup> .....	3	3
Electives .....	6	6
	15-18	18

**Master of Science in Administration of Justice**

The graduate degree program in administration of justice is designed to provide advanced educational preparation for practitioners and students pursuing careers in the fields of criminal justice, juvenile justice, or public safety. Such preparation includes understanding appropriate theoretical positions and concepts, and developing necessary professional skills. This 36 credit master's degree contains options in intervention/prevention, program management (administration), research, and manpower development.

**RECREATION**

CHARLES E. HARTSOE  
Chairman of the Department  
Richard Howell / Keith F. Ready  
Michael S. Wise

The basic objective of the Department of Recreation is to prepare the student for middle management, planning, and program positions in one of four areas of concentration: public recreation, recreation resource management, recreation for special populations, or commercial recreation and tourism.

The Department of Recreation offers the Bachelor of Science degree in recreation. Graduates may find career opportunities in a variety of public, private, voluntary, and commercial settings. These include municipal, county, and regional recreation programs; state and federal parks and resource management programs; special populations and institutional recreation programs; and private and commercial recreation resort developments and clubs. The student is prepared to pursue graduate study in the field of recreation at a number of major universities.

Students take the community services curriculum program in the first two years. Those who expect to major in recreation

should take CSE 261 and REC 303, Recreation in Modern Society and Leisure Delivery Systems, as electives in their first two years. If they have not done so, they will have to include them in their third year.

For the Bachelor of Science degree in recreation, a minimum of 123 semester hours, including the recreation internship, are required. While a maximum of 53 credits in recreation may be presented for the baccalaureate degree, courses beyond 44 credits must be approved by the advisor. This will permit students to develop some specialization in areas additional to their selected option.

In addition, upper division cognate courses or "tracks", approved by the advisor, are required within each option. These courses may come from more than one department. Departments with courses acceptable as cognates for recreation majors include: business administration and management, biology, crafts, corrections, education, rehabilitation services, psychology, sociology, social work, and urban studies.

A minimum of 45 upper level credits must be presented for graduation. (See "Degree Requirements" elsewhere in this bulletin.)

**Minor in Recreation**

Students desiring a minor in recreation will be required to complete: CSE 261, REC 303, and REC 395.

A total of eighteen hours for a minor are required and an additional nine hours of recreation courses are to be selected with the assistance and approval of an assigned advisor.

**Option in Public Recreation**

Students seeking specialization in the public recreation option must complete the following requirements:

	Credits	
	1st Sem.	2nd Sem.
<i>Third Year</i>		
REC 320 Recreation Analysis I . . .	3	—
REC 321 Recreation Analysis II . .	—	3
REC 331 Recreation Site Selection and Analysis .....	2	—
REC 331L Recreation Site Selection and Analysis Laboratory .....	2	—
REC 332 Recreation Site Design and Development .....	—	2

REC 332L Recreation Site Design and Development Laboratory ..	—	2
REC 395 Recreation Program Development .....	3	—
REC 451 Public Recreation I .....	—	3
Cognate <sup>1</sup> .....	3	3
Elective .....	3	3
	16	16

*Summer*

REC 401 Recreation Internship ...	—	6
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*Fourth Year*

REC 452 Public Recreation II ...	3	—
REC 494 Seminar: Public Recreation .....	—	3
REC 402 Recreation Administration .....	—	3
Recreation Electives .....	6	3
Cognate <sup>1</sup> .....	3	3
Elective .....	2	—
	14	12

**Option in Commercial Recreation and Tourism**

Students seeking specialization in the commercial recreation and tourism option must complete the following requirements:

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Third Year</i>		
REC 320 Recreation Analysis I ...	3	—
REC 321 Recreation Analysis II ...	—	3
REC 395 Recreation Program Development .....	3	—
REC 331 Recreation Site Selection and Analysis .....	2	—
REC 331L Recreation Site Selection and Analysis Laboratory .....	2	—
REC 332 Recreation Site Design and Development .....	—	2
REC 332L Recreation Site Design and Development Laboratory ..	—	2
REC 441 Commercial Recreation and Tourism .....	—	3
Cognate <sup>1</sup> .....	6	3
Electives .....	—	3
	16	16
<i>Fourth Year</i>		
REC 402 Recreation Administration .....	—	3
REC 442 Commercial Recreation and Tourism .....	3	—
REC 492 Seminar: Commercial Recreation and Tourism .....	—	3

<sup>2</sup> Lists of courses recommended for this requirement are available from advisors.

Cognate <sup>1</sup> .....	3	—
Electives .....	8	6
	14	12

**Option in Recreation Resource Management**

Students seeking specialization in the recreation resource management option must complete the following requirements:

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Third Year</i>		
REC 320 Recreation Analysis I ...	3	—
REC 321 Recreation Analysis II ...	—	3
REC 331 Recreation Site Selection and Analysis .....	2	—
REC 331L Recreation Site Selection and Analysis Laboratory .....	2	—
REC 332 Recreation Site Design and Development .....	—	2
REC 332L Recreation Site Design and Development Laboratory ..	—	2
REC 395 Recreation Program Development .....	3	—
REC 461 Recreation Resource Management .....	—	3
Cognates <sup>1</sup> .....	6	6
	16	16
<i>Summer</i>		
REC 401 Recreation Internship ...	—	6
<i>Fourth Year</i>		
REC 402 Recreation Administration .....	3	—
REC 462 Recreation Resource Management .....	3	—
REC 496 Seminar: Recreation Use of Natural Resources .....	—	3
Cognates <sup>1</sup> .....	3	3
Electives .....	4	7
	13	13

**Option in Recreation for Special Populations**

Students seeking specialization in the recreation for special populations option will complete the following requirements:

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Third Year</i>		
REC 320 Recreation Analysis I ...	3	—
REC 331 Recreation Site Selection and Analysis .....	2	—
REC 331L Recreation Site Selection and Analysis Laboratory .....	2	—

<sup>1</sup>Lists of courses recommended for this requirement are available from departmental advisors.

REC 395 Recreation Program Development .....	3	—
REC 398 Leisure Counseling .....	—	3
REC 471 Recreation for Special Populations .....	—	3
SOC 341 Group Dynamics .....	—	3
Cognate <sup>1</sup> .....	3	3
Departmental Elective .....	3	—
Elective .....	—	3
	16	15
<i>Summer</i>		
REC 401 Recreation Internship ...	—	6
<i>Fourth Year</i>		
REC 402 Recreation Administration .....	3	—
REC 472 Recreation Programs for Special Populations .....	3	—
REC 498 Seminar: Recreation for Special Populations .....	—	3
Cognate <sup>1</sup> .....	3	3
Departmental Elective .....	3	3
Elective .....	3	3
	15	12

## REHABILITATION COUNSELING

RICHARD E. HARDY

Chairman of the Department

GERALD L. GANDY

Coordinator—Undergraduate Studies

Vincent A. Alloco / John G. Cull

John D. Hutchinson / George R. Jarrell

Robert A. Lassiter / Marcia J. Lawton

Richard S. Luck / Donald R. McKenzie

Warren R. Rule / Leo A. Thralls

Keith C. Wright

Part-time—Jack A. Brightwell / Robert L. Brocklehurst

William T. Coppage / Lilly D. Corbett / S. James Cutler

James B. Funkhouser / Ann F. Houston

Charles H. Merritt / Tracy O'Hanlan

Dan Payne / James S. Peters II

Mitchell Rosenthal / J. William Underwood

Thomas F. Updike / Joseph H. Wiggins

The Department of Rehabilitation Counseling was established in 1955 to provide graduate education in rehabilitation counseling. The graduate program in rehabilitation counseling prepares prospective rehabilitation counselors for employment in state-federal rehabilitation programs and public and private agencies. Graduates work in rehabilitation units in mental hospitals, correctional institutions, public schools, private and public rehabilitation centers, sheltered workshops, adjustment centers, social service agencies, and other

organizations serving persons who are mentally, emotionally, socially, or physically handicapped for employment. The program also provides advanced education for persons presently employed in agencies and facilities offering services to handicapped persons.

Emphasis is placed upon professional education for developing the skills and knowledge necessary for effective rehabilitation counseling of handicapped persons. The variety of activities performed by rehabilitation counselors necessitates a highly diversified program. In addition to the development of a broad understanding of human behavior, techniques of individual and group counseling, interpersonal relations, vocational appraisal and adjustment, caseload management, and use of community resources in facilitating the rehabilitation of mentally, emotionally, socially, and physically handicapped persons are stressed. Graduate study in this department leads to the Master of Science degree in rehabilitation counseling. A catalog of graduate offerings is available on request.

## REHABILITATION SERVICES

The Bachelor of Science program in rehabilitation services is designed to prepare an individual to deal effectively with the problems of various disabled and disadvantaged client groups. It is possible to obtain a combination of the following skills and knowledge: (1) an understanding of the concept and nature of disability and its attendant disadvantages, (2) interviewing and interpersonal helping relationships, (3) rehabilitation case study methods, (4) community organization and dynamics, (5) job development and placement, (6) work evaluation and adjustment, (7) human resource planning, and (8) alcoholism rehabilitation.

Although opportunities for specialization exist, the emphasis of the curriculum is toward a broad interdisciplinary education appropriate for positions involved with effective human resource development and planning. Possible employment activities could include job development and placement, intake interviewing, paraprofessional counseling, vocational testing, work

evaluation and adjustment, client advocate public relations work, coordination, case management, research projects, human resource planning, program development, program operation, etc.

Institutional employment possibilities include organizations or agencies, private or public, concerned with physical disability, developmental disabilities, crises intervention, mental illness, geriatrics, corrections, drug addiction, alcoholism, employment, manpower development, manpower planning, community based youth employment, recreation, etc. Such organizations might include the Department of Vocational Rehabilitation, the Veterans Administration, the Commission for the Visually Handicapped, the Employment Security Commission, Goodwill Industries, Community Action Programs, Comprehensive Employment Training Programs, United Givers Agencies, hospitals, clinics, sheltered workshops, recreation programs, etc.

The Bachelor of Science degree in rehabilitation services includes the choice of three options: Option in Human Resource Services, Option in Human Resource Planning, and Option in Alcoholism Services. A minimum of 123 credit hours of study is required for the completion of the degree. Of these, a minimum of 39 credit hours is to be taken as upper division rehabilitation services and selected cognate courses. The remaining 84 credits are comprised of 45 credit hours of required courses (other than rehabilitation services and selected cognate courses) and 39 credit hours of electives. A minimum of 45 credit hours of upper division courses is required for graduation. No more than 45 credit hours can be taken in rehabilitation services courses.

The Human Resource Services Option involves a general rehabilitation services curriculum emphasizing direct therapeutic contact with clients with various disabilities. An upper division cognate involving courses selected from the areas of administration of justice and public safety, psychology, sociology, social welfare, and urban studies will be required. Due to the upper division cognate requirement, it is recommended that students take SOC 101,

PSY 101, and ECO 201-202 in their first two years.

The Human Resource Planning Option involves a specialization in program planning for human resource programs particularly in the manpower field. An upper division cognate involving courses selected from urban studies, economics, and business will be required. Due to the upper division cognate requirement it is recommended that students take ECO 201-202 in their first two years.

The Alcoholism Services Option involves a specialization in alcoholism rehabilitation. An upper division cognate involving courses selected from the areas of psychology, sociology, and urban studies (PSY 304 Developmental Psychology is a definite requirement within this cognate) will be required. Due to the upper division cognate requirement, it is recommended that students take SOC 101 and PSY 101 in their first two years.

Students will be encouraged to consider a second area of concentration from disciplines such as business administration, corrections, economics, political science, psychology, recreation, social work, sociology, special education, urban studies, etc. It should be noted that it is possible to obtain a minor in some of the areas indicated. Students will also be encouraged to take other rehabilitation services courses as electives as long as the student's semester hour total in these courses does not exceed 45 credit hours.

### **Minor in Rehabilitation Services**

The following courses are required: RES 301 and 312. The additional twelve hours are to be upper division RES courses agreed upon by the student and a faculty advisor in this department.

### **Option in Human Resource Services**

	<i>Credits</i>	
	<i>1st Sem.</i>	<i>2nd Sem.</i>
<i>Third Year</i>		
RES 301 Development of Rehabilitation Potential .....	3	—
RES 312 Contemporary Rehabilitation Services .....	—	3
RES 360 Work Evaluation and Adjustment .....	3	—



RES 370 Job Development and Placement .....	—	3
Cognate <sup>1</sup> .....	3	3
Electives .....	6	6
	15	15
<i>Fourth Year</i>		
RES 439 Current Problems in Rehabilitation .....	3	—
RES 450 Applied Rehabilitation Methods .....	3	—
RES 455 Practicum in Rehabilitation .....	3	3
RES 456 Interpretative Processes in Rehabilitation .....	—	3
Cognate <sup>1</sup> .....	3	3
Electives .....	6	6
	18	15

Cognate <sup>1</sup> .....	3	3
Electives .....	9	9
	15	15

<i>Fourth Year</i>		
RES 421 Overview of Alcoholism .....	3	—
RES 422 Recovery of Alcoholism .....	—	3
RES 423 Principles, Methods, and Techniques in Treatment of the Alcoholic .....	3	—
RES 451 Treatment of the Alcoholic with Significant Others .....	—	3
RES 452 Crisis Intervention with the Alcoholic .....	—	3
RES 454 Practicum in Rehabilitation of the Alcoholic .....	3	3
Cognate <sup>1</sup> .....	3	3
Electives .....	3	3
	15	18

### Option in Human Resource Planning

	Credits	
	1st Sem.	2nd Sem.
<i>Third Year</i>		
RES 301 Development of Rehabilitation Potential .....	3	—
RES 312 Contemporary Rehabilitation Services .....	—	3
RES 370 Job Development and Placement .....	3	—
RES 380 Human Resource Planning I .....	—	3
Cognate <sup>1</sup> .....	3	3
Electives .....	6	6
	15	15

<i>Fourth Year</i>		
RES 435 Human Resource Program Design .....	—	3
RES 439 Current Problems in Rehabilitation .....	3	—
RES 455 Practicum in Rehabilitation .....	3	3
RES 480 Human Resource Planning II .....	3	—
Cognate <sup>1</sup> .....	3	3
Electives .....	6	6
	18	15

### Option in Alcoholism Services

	Credits	
	1st Sem.	2nd Sem.
<i>Third Year</i>		
RES 301 Development of Rehabilitation Potential .....	3	—
RES 312 Contemporary Rehabilitation Services .....	—	3

### URBAN STUDIES AND PLANNING

#### ARTHUR L. SILVERS

Chairman of the Department

David L. Ames / Carol A. Christensen  
 Branda G. Goranflo / Morton B. Gulak  
 Carroll R. Hormachea / Jennifer Lantrip  
 Robert A. Lewis / John V. Moeser  
 Peter Roggenmann / Robert D. Rugg  
 Peter Schulz / Harland W. Westermann  
 Part-time and Adjunct—Ted I. Alman  
 Alvan Bruch / Jakob Joffe  
 Philip A. Leone / Michael C. Ritz

The Department of Urban Studies and Planning emphasizes knowledge pertinent to the urban system as a whole as the basis for exploring alternative solutions to problems associated with contemporary and future urbanization. Accordingly, the urban studies curriculum is intended to give the student an integrated perspective on the urban phenomenon. Within this curriculum the student may choose among professionally oriented or general academic programs.

Professionally oriented programs prepare the student for positions in government agencies as well as private industry or graduate school. The Physical Planning Option is one which is intended primarily to help students combine skills in land use planning and urban design with a knowledge of the environmental sciences. However, other aspects of the urban public arena can be pursued by developing courses of study in conjunction with departmental advisors.

For those with broader interests in the

<sup>1</sup>Lists of courses recommended for this requirement are available from departmental advisors.

urban scene, the Urbanization and Urban Affairs Option is available. Drawing strongly upon the humanities and the social sciences, it is designed for students who seek a liberal arts focus to the analysis and interpretation of forces emerging within the urban community. Students may make use of this option as a background for graduate studies in a variety of fields, either of a professional or academic nature.

All students may apply for participation in the urban government internship program working in legislative or administrative governmental positions within the Richmond region.

The degree of Bachelor of Science in urban studies requires the completion of a minimum of 123 credit hours of study. In the junior and senior years a student must successfully complete the following required courses: URS 201 Urban Morphology (if not taken previously), 303 Urban Systems: Structure and Function, 304 Urban Systems: Public Facilities and Service Delivery, 310 Introduction to Public Planning, and 440 Senior Seminar: The Good City. (Students who select the Physical Planning Option must take URS 491: Seminar in Studio, instead of URS 440.) The total credit hours in urban studies courses shall not exceed 45. A minimum of 45 upper level credits must be presented for graduation.

### Minor in Urban Studies

For a minor in urban studies for a student outside the School of Community Services, the following nine credit hours are required: URS 303, CSE 315, and CSE 316. For those students within the School of Community Services, who have completed CSE 115/CSE 116 to fulfill core curriculum requirements, a substitution of six upper level credits in urban studies should be taken. An additional nine hours of URS electives are to be taken with the advice and consent of an advisor in this department.

### Option in Urbanization and Urban Affairs

	Credits	
	1st Sem.	2nd Sem.
Second Year		
URS 201 Urban Morphology .....	4	—

#### Third Year

URS 303 Urban Systems: Structure and Function .....	3	—
URS 304 Urban Systems: Public Facilities and Service Delivery ..	—	3
URS 310 Introduction to Public Planning .....	3	—
URS 313 Urban Research and Field Methods .....	—	3
Cognates <sup>1</sup> .....	3	3
Electives .....	6	6
	15	15

#### Fourth Year

URS 306 Urban Economic Base or		
URS 321 Urban Economics .....	3	—
URS 411 Urban Public Policy-Making Processes .....	3	—
URS 440 Senior Seminar: The Good City .....	—	3
URS 471 Introduction to the Study of the Future .....	3	—
Cognates <sup>1</sup> .....	3	3
Electives .....	5	9
	17	15

### Option in Physical Planning

	Credits	
	1st Sem.	2nd Sem.
Second Year		
URS 201 Urban Morphology .....	4	—

#### Third Year

URS 303 Urban Systems: Structure and Function .....	3	—
URS 304 Urban Systems: Public Facilities and Service Delivery ..	—	3
URS 306 Urban Economic Base ..	—	3
URS 310 Introduction to Public Planning .....	3	—
URS 313 Urban Research and Field Methods .....	—	3
URS 331 Environmental Systems ..	3	—
URS 332 Environmental Management <sup>2</sup> .....	—	3
URS 352 Cartography .....	3	—
Electives and Cognates <sup>1</sup> .....	3	3
	15	15

#### Fourth Year

URS 314 Urban Models and Evaluation Procedures .....	3	—
URS 415 Air Photo and Remote Senior Interpretation .....	—	2
or		or
URS 422 Programming and Budgeting .....	—	3

<sup>1</sup>Lists of courses recommended for this requirement are available from departmental advisors.

<sup>2</sup>URS 202 or URS 452 may be substituted

URS 481 Land Use and Site Planning .....	3	—
URS 491 Seminar in Studio: The Good City .....	3	—
URS 492 Planning Studio .....	—	3
Electives and Cognates <sup>1</sup> .....	8	9 or 10
	<hr/> 17	<hr/> 15

## URBAN AND REGIONAL PLANNING

The Master in Urban and Regional Planning (M.U.R.P.) was established in 1973 to provide graduate education in urban and regional planning. The central concern of this program must be people. The mission of a professional urban and regional planning program is to instill in student planners the sensitivities and perspectives, coupled with the tools, to enable them to help fashion humane urban environments. Such environments—manifesting the needs and aspirations of their inhabitants—must be created within a coherent frame work of social and economic development to provide the broadest range of opportunities for individuals to meet their aspirations.

Thus the graduate program in urban and regional planning has four major goals:

1. To provide a broad but intensive background in the dynamics of urbanization with particular attention to the anticipation of future consequences of existing urban conditions.
2. To provide a rigorous professional grounding in the theory and methodologies of planning with emphasis on defining the role of planning and problem solving: their capabilities as well as their limitations.
3. To provide the opportunity to gain extensive knowledge in a specialized area of planning. Concentrations include both area levels of specialization: urban (small area) or regional (large area); and topical "options: land use and environmental planning, community services planning, urban and regional economic development, and health planning. In addition, a specialization in recreation planning may be developed through advising."
4. To produce a graduate planner who can combine theoretical learning with practical experience by providing within the curriculum a balance between classroom experience and actual field experience in meeting the types of problems he will encounter as a professional planner.

## COURSES IN COMMUNITY SERVICES (CSE)

**115, 116 The American City.** Semester courses; 3 lecture hours. 3, 3 credits. A general survey of the

phenomenon of urbanization in the United States. Special emphasis is given to: the evolution of cities, the urban experiment in America, the functions of cities and their physical development, the urban economic base, the nature of the city as a society, public institutions, and urban governance.

**211, 212 Social Problems and Prospects.** Semester courses; 3 lecture hours. 3,3 credits. A preliminary analysis of the major social problems confronting our urbanized communities and the actions necessary for their solution. Income maintenance, public safety, and leisure will be the topics of study during the first semester. The second semester will include housing, employment, and health care.

**241-242 Methods of Community Analysis.** Continuous course; 1 lecture and 3 laboratory hours. 3-3 credits. Prerequisite: MAT/BUS 111. Methods of aggregate and a real analysis for human services. First semester considers various cartographic and statistical techniques employed in systematic analysis; second semester is the application of these techniques, using a planning district as the study area. (See page 40 for laboratory fee.)

**251 Survey of the Administration of Justice.** Semester course; 3 lecture hours. 3 credits. Comprehensive overview of the administration of justice; assesses the extent of crime; reviews law enforcement, judicial, and correctional processes at all levels of government; discusses history and philosophy of public safety; evaluates career opportunities. Required of all majors.

**252 Introduction to the Juvenile Justice Systems.** Semester course; 3 lecture hours. 3 credits. This survey course studies all segments of juvenile justice and special procedures designed for young persons; recognizes the importance of proper handling of the juvenile by the police and the courts; reviews recent developments in juvenile rehabilitation.

**253 Introduction to Corrections.** Semester course; 3 lecture hours. 3 credits. A survey of societal responses to the offender; traces the evolution of practices based on philosophies of retribution, punishment, and rehabilitation; reviews contemporary correctional activities and their relationships to other aspects of the criminal justice system; introduces the emerging area of correctional programming within the community.

**261 Recreation in Modern Society.** Semester course; 3 lecture hours. 3 credits. First semester: introduction to the historical and philosophical foundations of leisure and recreation; implications of continued growth of the leisure phenomenon in contemporary society. Second semester: evaluation of public, private, and commercial agencies that provide recreational services. Particular emphasis is given the types of leisure activities offered in relationship to the recreation market.

**271 Metropolitan Studies Seminar.** 2 lecture hours weekly for nine weeks; 300 clock hours in a public service agency. 3 credits. Prerequisite: permission of instructor. A weekly small group seminar for students employed in public service agencies. Generalizes the particular experience of the student in one agency to

knowledge of public service career options. Emphasizes professional roles and patterns of organization in human service agencies.

**291 Introduction to Rehabilitation Services.** Semester course; 3 lecture hours. 3 credits. An introduction to rehabilitation services as these relate to the increased potential of human resources through gainful employment. This course will provide a basic understanding of a work-oriented society and of the specialized needs of individuals to become employable. The role of the rehabilitation services in this effort is emphasized.

**315, 316 The American City.** Semester courses; 3 lecture hours. 3, 3 credits. A general survey of the phenomenon of urbanization in the United States. Special emphasis is given to the evolution of cities, the urban experiment in America, the functions of cities and their physical development, the urban economic base, the nature of the city as a society, public institutions, and urban governance. Students having CSE 115, 116 are not eligible.

## COURSES IN ADMINISTRATION OF JUSTICE AND PUBLIC SAFETY (AJP)

**240 Introduction to Criminalistics.** Semester course; 3 lecture hours. 3 credits. Prerequisite: MAT/BUS 111. Considers the varieties of physical evidence utilized in criminalistics with emphasis on analytical and microscopic determinations by the forensic laboratory.

**260 Substantive Criminal Law and Due Process.** Semester course; 3 lecture hours. 3 credits. Deals with the definitions and processing of substantive offenses along with the bases of criminal liability, defenses, and complicity. Covers the scope of individual rights under due process, emphasizing arrest, interrogations, search, and seizure.

**315 Traffic Planning and Management.** Semester course; 3 lecture hours. 3 credits. Contemporary and future problems of traffic, accident investigation, and traffic regulation; enforcement direction, pedestrian, intersection, and parking control; records and analysis; selective enforcement; engineering and education. Traffic law and court procedure.

**324 Courts and the Judicial Process.** Semester course; 3 lecture hours. 3 credits. Examines the systems that adjudicate criminal and civil law; includes constitutional authority, jurisdictions, and trial processes, with particular emphasis on reform in court administration, disposition without trial and sentencing. Required of all majors.

**325 Juvenile Justice Law and Process.** Semester course; 3 lecture hours. 3 credits. Examines the juvenile court as an institution: its jurisdiction and procedures. Considers intake, pre-trial diversion, and hearings, as well as rights and liabilities of the delinquent, dependent, and neglected child. Contrasts juvenile and adult law; projects future impact of the court.

**342 Public Safety in the Changing Community.** Semester course; 3 lecture hours. 3 credits. Examines the

social dimensions of criminal justice agencies and their relationship to the total community; evaluates the impact of the changing police role, conflicting forces affecting law enforcement, and public attitudes toward police.

**352 Crime and Delinquency Prevention.** Semester course; 3 lecture hours. 3 credits. Review and analysis of the problems associated with prevention of crime and delinquency, viewed in a total systems context. Programs and activities involving citizen, community, and agency interrelationships will be developed and examined. Students are responsible for preparing and evaluating projects with crime preventive goals.

**355 Trends in Justice Administration.** Semester course; 3 lecture hours. 3 credits. A comprehensive examination of administration from the historical development to current trends. Includes analysis of the differing roles of organizations; management fundamentals of planning, personnel, and budgeting; and the impacts of science and technology upon operational policies.

**360 Comparative Law and Criminal Responsibility.** Semester course; 3 lecture hours. 3 credits. A study of U. S. criminal law and jurisdiction at the federal and state levels, emphasizing history and comparison with that of foreign nations; includes a review of model code development reforms designed to insure uniformity and more directly establish criminal responsibility.

**363 Correctional Law.** Semester course; 3 lecture hours. 3 credits. Examines the legal rights of both the offender and the correctional worker. Attention is given to case law and legal decisions affecting policies and procedures in probation, correctional settings, and parole. Trends influencing correctional programming and management activities will be projected.

**380 Criminal Justice Research.** Semester course; 3 lecture hours. 3 credits. Designed to familiarize the student with current and applied research activities in justice and public safety. Analyzes research in criminal justice journals and government reports; enhances the capability to evaluate contemporary research. Students apply research techniques to specific topics and use research methods from professional fields.

**390 Criminal Justice Field Internship.** Semester course; 3 or 6 credits. Designed to provide the student with an opportunity to relate theory to practice through observation and experience. Must be performed in an approved agency under the supervision of an instructor. This course or AJP 491 is required of all majors. Credits to be determined according to the type of internship.

**391 Field Service in Community Corrections.** Semester course; 1 credit. Designed to provide the student with an opportunity to participate as a volunteer worker in an agency dealing with offender referral, diversion, or prevention. Offers actual experience as an agency volunteer while under supervision of a faculty advisor. May be taken three times for a total of three credits. Cannot be used to substitute for AJP 390.

**407 Industrial and Retail Security.** Semester course; 3 lecture hours. 3 credits. The organization and management of industrial security and plant protection units; security, police, administrative, legal, and technical problems; special problems of government contract security; survey of specialized programs in retail security; insurance and credit investigation; transportation security; private guard and alarm service; regulatory and licensing agencies.

**426 Legal Aspects of Highway Safety.** Semester course; 3 lecture hours. 3 credits. Course covers the implications of the Uniform Traffic Code, the Model Traffic Ordinance, the Highway Safety Act of 1966, and the Motor Vehicle Laws of Virginia.

**431 Criminal Justice: Management Concepts.** Semester course; 3 lecture hours. 3 credits. Examines major concepts of management in criminal justice and public safety agencies with emphasis on functional and structural approaches. Formulation of policies and procedures in the optimum utilization of personnel and financial resources are considered.

**432 Criminal Justice: Organizational Dynamics.** Semester course; 3 lecture hours. 3 credits. Considers the behavioral dimensions of administration in criminal justice and public safety agencies. Examines the concepts of leadership and decision making and the effect of environmental dynamics in the management of the criminal justice system.

**437 Accident Analysis and Crash Prevention.** Semester course; 3 lecture hours. 3 credits. An analysis of the factors, implications, and methodologies of safety and accident prevention; application of crash prevention programming; implications for transportation safety in the future.

**440 Behavioral Factors in Highway Safety.** Semester course; 3 lecture hours. 3 credits. Analyzes behavioral aspects of highway transportation safety, accident causation, and the utilization of behavioral science principles in the modifications of human behavior. Acquaints those involved in traffic safety administration with current safety-related research and its application. Emphasizes the role of stimulants and depressants in crash causation research.

**451 Correctional Administration.** Semester course; 3 lecture hours. 3 credits. Reviews the development of theories and practices regarding contemporary correctional administration; various correctional systems are historically traced and evaluated; encompasses both the custodial and treatment functions of all correctional settings, including the jail.

**452 Juvenile Justice Administration.** Semester course; 3 lecture hours. 3 credits. Analyzes the maintenance of all juvenile justice agencies from operational field services to the supportive organizations. Assesses the complex interrelationships among all public and private youth agencies stressing safety as well as referral. *Emphasizes* the organizational and administrative factors which determine program design and implementation.

**455 Community-Based Correctional Programs.** Semester course; 3 lecture hours. 3 credits. A comprehensive review of various community-based rehabilitation and treatment efforts; includes discussions on probation, parole, work release, half-way houses, and other methods of reintegrating the offender into society.

**460 Evaluation and Treatment of the Offender.** Semester course; 3 lecture hours. 3 credits. A survey of the issues and procedures involved in evaluating individual differences in offenders and among classes of offenders; current diagnostic and treatment methods are discussed; introduces the student to case analysis and correctional counseling techniques.

**471 Scientific Research and Crime Analysis.** Semester course; 3 lecture hours. 3 credits. A comprehensive evaluation of current developments in research, instrumentation, and laboratory technology utilized to detect, identify, analyze, and compare demonstrative evidence; includes discussions on chromatography, spectrography, neutron activation analysis, toxicology, and forensic pathology and psychiatry.

**474 Correctional Institution Development and Design.** Semester course; 3 lecture hours. 3 credits. Prerequisite: permission of instructor. Examines the various concepts, theories, and techniques involved in development of modern correctional treatment processes as they influence the design of correctional institutions, including community-based facilities. Student analyzes current designs and architectural innovations in corrections, with major consideration directed toward the national standards for correctional architecture.

**475 Case Studies in Evidence.** Semester course; 3 lecture hours. 3 credits. Analyzes case studies reflecting the supervisory role of the courts over the prosecutorial use of testimonial and non-testimonial evidence; examines by actual cases the judicial interpretive processes by which the public safety is balanced with individual rights.

**480 Seminar: Critical Issues in Criminal Justice.** Semester course; 3 lecture hours. 3 credits. Analyzes contemporary questions relating to policies, goals, and developments throughout criminal justice; includes detailed examinations of vital issues and emerging trends which promise to affect the future. Research papers are to be prepared on selected issues. Required of all majors.

**491 Directed Individual Study.** Semester course; 3 credits. Designed to provide an independent research opportunity for the employed adult student who does not require internship experience. Enrollment only upon consent of the department chairman. This course or AJP 390 is required of all majors.

## COURSES IN RECREATION (REC)

**303 Leisure Delivery Systems.** Semester course; 3 lecture hours. 3 credits. Evaluation of public, private, and commercial agencies that provide recreation services. Particular emphasis is given the types of

leisure activities offered in relationship to the recreation market.

**320 Recreation Analysis I.** Semester course; 3 lecture hours. 3 credits. Examines various approaches to the study of leisure. Assesses the use of free time and the expenditure of time and money to fulfill leisure needs.

**321 Recreation Analysis I.** Semester course; 3 lecture hours. 3 credits. Prerequisite: REC 320. Systems of quantitative evaluation of various types of populations, neighborhoods, and communities for the purpose of determining recreation demands. Methods of determining real differences in recreation resource offerings.

**331 Recreation Site Selection and Analysis.** Semester course; 2 lecture hours. 2 credits. Examination of the factors accentuating the demand for recreation planning; the basic procedures involved in the planning process; analysis of on- and off-site influencing factors affecting potential for recreation development; procedures in preparation of site plans and development proposals; trends in site selection and analysis.

**L331 Recreation Site Selection and Analysis Laboratory.** Semester course; 4 laboratory hours. 2 credits. Laboratory work correlated with REC 331. Can be taken only concurrently or subsequent to REC 331. (See page 40 for laboratory fee.)

**332 Recreation Site Design and Development.** Semester course; 2 lecture hours. 2 credits. Prerequisite: REC 331. General principles of planning and development of basic recreation areas and facilities; specific principles of design relating to outdoor recreation facilities; standards relative to space requirements, location, and programs; trends in site design and development.

**L332 Recreation Site Design and Development Laboratory.** Semester course; 4 laboratory hours. 2 credits. Prerequisites: REC 331 and REC L331. Laboratory work correlated with REC 332. Can be taken only concurrently or subsequent to REC 332. (See page 40 for laboratory fee.)

**395 Recreation Program Development.** Semester course; 3 lecture hours. 3 credits. Principles of recreation program development; intensive study of the recreation program areas available to participants; analysis of the methods and techniques of program implementation and program evaluation.

**396 Recreation Program Management.** Semester course; 3 lecture hours. 3 credits. Prerequisite: REC 395 or permission of instructor. Course is designed to familiarize students with the planning and organizing of programs and the directing of participants in individual, group, and community-wide recreational activities.

**398 Leisure Counseling.** Semester course; 3 lecture hours. 3 credits. An introduction to the theory and application of leisure counseling as applied to special populations. The use of leisure counseling as a means of client evaluation and assessment also will be examined.

**401 Recreation Internship.** Summer semester; 6 credits. Prerequisite: senior standing. The student, in a nine-week program, assigned on an individualized basis

to public, private, and commercial agencies. Opportunities are afforded for the student to gain practical experience under supervision in applying theory and methodology. Total of 315 clock hours required.

**402 Recreation Administration.** Semester course; 3 lecture hours. 3 credits. Principles of the administrative process. Deals with basic procedures of recreation administration, with particular emphasis on programming and budgeting; personnel practices and policies; publicity and public relations, and legal foundations and legislative basis for recreation services.

**441 Commercial Recreation and Tourism.** Semester course; 3 lecture hours. 3 credits. Examination of concepts, principles, and functions of various commercial recreation and tourism agencies providing for leisure needs.

**442 Commercial Recreation and Tourism.** Semester course; 3 lecture hours. 3 credits. Prerequisite: REC 441. Analysis of methodology of planning and implementing effective commercial recreation and tourism operations. Special consideration is given to the organization and administration of existing facilities.

**451 Public Recreation.** Semester course; 3 lecture hours. 3 credits. The importance, requirements, and problems of operating public recreation facilities and areas; establishing policies for development, control, communication, employment, programs, and finance. Special consideration is given to community centers, playgrounds, aquatic facilities, and fee-based classes.

**452 Public Recreation II.** Semester course; 3 lecture hours. 3 credits. Examination of the organizational structures and functions of various public recreation delivery systems, including an analysis of methodology for implementing effective programs. The resources and power structures that are inherent in communities are reviewed in relation to public recreation.

**461 Recreation Resource Management.** Semester course; 3 lecture hours. 3 credits. A comprehensive overview of recreation resource management institutions, both public and private. Emphasis is given to the public sector at the federal, state, and local levels. Professional, service, and educational organizations contributing to outdoor recreation are examined. The legal framework operating within recreation resource management also is covered.

**462 Recreation Resource Management.** Semester course; 3 lecture hours. 3 credits. Prerequisite: REC 461. Examination of concepts, principles, and practices of recreation resource land and facility management. Quantitative and qualitative resource evaluation. Special consideration is given to methods and techniques for determining management policies.

**471 Recreation for Special Populations.** Semester course; 3 lecture hours. 3 credits. An introduction to services for special populations. Examines the various agencies and institutions which provide such services as well as the professional competency necessary for the delivery of leisure services to the handicapped; the physically, socially, and mentally disabled; and the aged. Introduces the student to the techniques of client assessment and leisure counseling techniques.



**472 Recreation Programs for Special Populations.** Semester course; 3 lecture hours. 3 credits. The development of leisure service programs for special populations. Includes a survey of programming for clients with selected handicaps and physical, mental, and social disabilities. Emphasis will be on the delivery of such services in a community setting.

**473 Leisure and the Aged.** Semester course; 3 lecture hours. 3 credits. An analysis of the leisure needs of the aged. The need for specialized leisure programs for the aged in a variety of community and institutional settings will be explored. Pre-retirement counseling will be emphasized.

**475 Recreation in Correctional Settings.** Semester course; 3 lecture hours. 3 credits. A survey of recreational needs of inmates in adult and juvenile correctional institutions, short term institutions, and community based correctional institutions. The development of specialized programming and the role of recreation in the rehabilitative process will be examined.

**480 Specialized Recreation Programs for Handicapped Children.** Semester course; 3 lecture hours. 3 credits. Development of recreation programs for handicapped children in schools, other institutions, and community settings. Consideration will be given to the development of leisure skills and goal accomplishments.

**482 Camp Management.** Semester course; 3 lecture hours. 3 credits. Introduction to theory and practice of camp planning and operation. Survey of present day camp systems and the management of both day and resident sites will be examined.

**484 Urban Recreation Resources.** Semester course; 3 lecture hours. 3 credits. The purpose of the course is to gain an understanding of the physical resources within the urban area which have the potential to be developed for outdoor recreation. The course will emphasize methods of identification, planning, and management practices including conservation and multiple use of urban recreation resources.

**485 Conference and Convention Planning and Management.** Semester course; 3 lecture hours. 3 credits. The planning, organizing, promoting, and implementing of conferences and conventions. Included will be the development of conference programming, financing, and public relations as well as negotiations with meeting facilities, hotels, and food service agencies.

**486 Club Management.** Semester course; 3 lecture hours. 3 credits. Principles, methods, and problems related to the organization, management, and operation of private clubs; emphasis on boards of directors, committee organization, legal, and financial aspects.

**492 Seminar: Commercial Recreation and Tourism.** Semester course; 3 lecture hours. 3 credits. Advanced seminar in commercial recreation and tourism which analyzes in depth special problem areas and current issues in facility development.

**494 Seminar: Public Recreation.** Semester course; 3

lecture hours. 3 credits. Advanced seminar in public recreation which analyzes in depth special problem areas and current issues at a variety of scales ranging from neighborhood to regional level. Independent research on special projects.

**495 Independent Study in Recreation.** Semester course; 6 credits. Prerequisite: permission of internship director. Under supervision of a faculty advisor, whose consent is required to register, study a topic of concern to the student. Each student must present his findings in writing and pass an oral examination before a faculty committee of three members.

**496 Seminar: Recreation Use of Natural Resources.** Semester course; 3 lecture hours. 3 credits. Advanced seminar in recreation use of natural resources which analyses in depth special problem areas and current issues in recreational resource management. Independent research on special projects.

**498 Seminar: Recreation for Special Populations.** Semester course; 3 lecture hours. 3 credits. Advanced seminar in recreation for special populations which offers an in depth analysis of current issues affecting the recreation profession and handicapped and disadvantaged populations. Research on special projects will be required.

## COURSES IN REHABILITATION SERVICES (RES)

**301 Development of Rehabilitation Potential.** Semester course; 3 lecture hours. 3 credits. Provides an understanding of the problems conforming the unemployed and underemployed in achieving maximum employment potential. The particular nature of various problems encountered by such populations is analyzed, in relation to the nature of the requirements of employment.

**312 Contemporary Rehabilitation Services.** Semester course; 3 lecture hours. 3 credits. Role of the rehabilitation worker in the development of human resources. Organization of service delivery systems and community resources. The relationship of rehabilitation services to societal needs. Identification of potential recipients of service.

**360 Work Evaluation and Adjustment in Rehabilitation.** Semester course; 3 lecture hours. 3 credits. Provides an overview of principles of determining work potential and overcoming maladjustment to work. Characteristics of work environments, assessment of work potential, and contemporary problems of work evaluation and work adjustment in rehabilitation services.

**370 Job Development and Placement.** Semester course; 3 lecture hours. 3 credits. An examination of the characteristics of the local labor market, the work barriers confronting special populations, and the methods and techniques involved in putting people to work. Special emphasis will be placed upon understanding employer demands, task and skill analysis,



identifying attributes of clients, client/job matching skills, and follow-up techniques.

**380 Human Resource Planning I.** Semester course; 3 lecture hours. 3 credits. Collecting, analyzing, recording, reporting, and utilizing data which describes the state of the labor market as well as the condition of the labor force. Emphasis will be placed upon finding sources of data, making projections, and analyzing unemployment and underemployment among special populations.

**420 Introduction to Vocational Rehabilitation.** Semester course; 6 hours. 6 credits. This course provides an intensive five-week exposure to the broad field of vocational rehabilitation. Classroom, seminar, and laboratory experiences are employed relative to the full range of physical and mental disabilities. Interaction with the various professional members of the vocational rehabilitation team and with individuals with various disabling conditions is arranged. The rehabilitation counselor's role and function as a member of the team is stressed.

**421 Overview of Alcoholism.** Semester course; 3 lecture hours. 3 credits. Overview of alcoholism as a progressive, family disease which can be arrested by a multi-disciplinary, rehabilitative approach; consideration of the etiology of alcoholism from physiological, psychological, and socio-cultural viewpoints as well as methods of intervention at various stages; description of the highlights of the continuum of care available in the recovery process.

**422 Recovery of Alcoholism.** Semester course; 3 lecture hours. 3 credits. Exploration of the denial system present in U.S. society which complicates the early intervention and treatment of a progressive, family disease; presentation of new hope for the alcoholic and his family in the attempts being made in certain areas of society to begin the recovery process early; description of approaches proving to be helpful in facilitating the alcoholic professions in guiding the alcoholic and his family from isolation to involvement and integration.

**423 Principles, Methods, and Techniques in Treatment of the Alcoholic.** Semester course; 3 lecture hours. 3 credits. Prerequisites: RES 421 and 422 or permission of instructor. Integration of principles, methods, and techniques utilized in the recovery process of alcoholism especially in group work; exploration of various methods and theories as applied to treatment of the alcoholic, with provision for group involvement, cofacilitation, and practice counseling sessions.

**425 Introduction to Rehabilitation.** Semester course; 3 lecture hours. 3 credits. This course is designed to give the student a comprehensive overview of the rehabilitation process. It emphasizes the historical, philosophical, social, and legal aspects of rehabilitation. Special attention is devoted to the professional aspects of rehabilitation counseling. The need for the rehabilitation counseling, and skills and functions of the rehabilitation counselor are also covered.

**433 Directed Readings in Rehabilitation.** Semester

course; 1, 2, or 3 lecture hours. 1, 2, or 3 credits. Provides an opportunity for students to intensify understanding in one or more areas of rehabilitation through directed readings under supervision of a faculty member. The study experience must be synthesized in a paper and a written or oral examination before a faculty committee must be passed.

**435 Human Resource Program Design.** Semester course; 3 lecture hours. 3 credits. Prerequisite: permission of instructor. The utilization of planning data in the design of human resource programs. Objective setting, client group selection processes, work programs, mix of services, selection of service deliverers, staffing, budgeting, fiscal systems, monitoring, internal evaluation, information systems, and interagency cooperation as parts of the manpower program will be examined.

**439 Current Problems in Rehabilitation.** Semester course; 3 lecture hours. 3 credits. A study of developments and implications resulting from rehabilitation research and demonstration activities. Agency problems related to staff improvement and expansion of rehabilitation services and facilities will also be considered as well as reviews of specific disability problems and trends in rehabilitation.

**440 Directed Readings in Alcoholism.** Semester course; 3 lecture hours. 3 credits. Prerequisite: permission of instructor. Opportunity to investigate and pursue in depth a particular concept encountered in the alcoholism concentration courses or to study in detail a particular problem in alcoholism while working in the field; under the direction of the alcoholism personnel in the department.

**450 Applied Rehabilitation Methods.** Semester course; 3 lecture hours. 3 credits. Methods of intervention in rehabilitation, emphasizing the development of interpersonal skills, e.g., communication skills, interviewing techniques.

**451 Treatment of the Alcoholic with Significant Others.** Semester course; 3 lecture hours. 3 credits. Prerequisites: RES 421, 422, 423, or permission of instructor. Stress on the importance of the family disease concept of alcoholism utilized throughout the concentration series; demonstrations and role-playing of situations involving the alcoholic and significant others provided; discussions of Multiple Impact Family Therapy and other approaches developed relevant to the alcoholic.

**452 Crisis Intervention with the Alcoholic.** Semester course; 3 lecture hours. 3 credits. Prerequisites: RES 421, 422, 423, or permission of instructor. Focus on the application of concepts discussed in theory in the recovery process course; sharing of difficulties and successes with crisis intervention by individuals already in the field; provision of new and more refined techniques under the direction of experts demonstrating their applicability.

**454 Practicum in the Rehabilitation of the Alcoholic.** Semester course; 3, 6, 9, or 12 credits. Prerequisite: permission of instructor. Opportunity to observe and participate in the 22 tasks of the alcoholism worker as

outlined in the Littlejohn Report and required for certification; provision for general direction and supervision by the alcoholism personnel within the department and the direct supervision by a qualified person with the agency or facility.

**455 Practicum in Rehabilitation.** Semester course; 3, 6, 9, or 12 credits. Prerequisite: permission of instructor. Designed to provide opportunities for observation and participation in rehabilitation and related settings. Experiences are systematically related to theoretical concepts.

**456 Interpretative Processes in Rehabilitation.** Semester course; 3 lecture hours. 3 credits. This course is concerned with methodology of collection, analysis, synthesis, and effective utilization of education, social, psychological, vocational, and medical information in the rehabilitation process.

**459 A Survey of Rehabilitation of Blind and Visually Impaired Individuals.** Semester course; 3 lecture hours. 3 credits. The purpose of this course is to acquaint the student, rehabilitation counselors, and other personnel working in related areas with problems encountered in the rehabilitation of blind and partially sighted persons.

**461 Work Evaluation Techniques for Rehabilitation.** Semester course; 3 lecture hours. 3 credits. An in depth examination of the methods and techniques utilized in determining employment potential. The role of the work evaluator in the rehabilitation process. Specific procedures and approaches are analyzed including the TOWER System, Singer-Graflex System, and other methods currently utilized in rehabilitation services.

**462 Work Adjustment Techniques for Rehabilitation.** Semester course; 3 lecture hours. 3 credits. An in depth analysis of methods utilized in overcoming maladaptive worker behavior in rehabilitation services including group process, sheltered workshops, and non-verbal techniques. The role and function of adjustment personnel in the rehabilitation process. Current problems and research in methods of adjustment.

**466 Field Work Practicum.** Semester course; 3 hours. 3 credits. An eight week on-the-job experience jointly supervised by a university faculty member and by the student's training supervisor in the public or private rehabilitation agency or facility in which the student is employed. A choice of exercises is programmed to encourage the further integration of concepts, practices, and skills with actual agency policy and service delivery.

**480 Human Resource Planning II.** Semester course; 3 lecture hours. 3 credits. Prerequisite: permission of instructor. An examination of the political, legislative, bureaucratic, and community forces impacting upon manpower planning. Techniques of manpower planning in a local labor market are applied where planning is a function of the United States Department of Labor and local government.

## COURSES IN URBAN STUDIES (URS)

**201 Urban Morphology.** Semester course; 3 lecture and 2 laboratory hours. 4 credits. A study of the growth and development of the physical aspects of the city. Various elements will be analyzed to determine their origin, development patterns, redevelopment requirements, and their effect on urban form and design. A laboratory is included to give the student an opportunity to study urban patterns through field exercises and archival research. (See page 40 for laboratory fee.)

**202 Introduction to Housing.** Semester course; 3 lecture hours. 3 credits. A general survey of the housing market and cycle forces, the filtering process, special characteristics of real estate, the interdependence of public and private real estate, and urban land acquisition problems.

**302 The Use of Urban Land.** Semester course; 3 lecture hours. 3 credits. Land use attitudes in Europe and North America, land use competition, reconciliation of discordant uses by the judiciary, zoning powers and the zoning trio, departures from established ordinances, property rights, aesthetics, as a control, regulating land use to the tempo, and sequence of growth.

**303 Urban Systems: Structure and Function.** Semester course; 3 lecture hours. 3 credits. Analysis of the various social, economic, and governmental systems of which the urban community is comprised and of the manner in which these various systems interact. Emphasizes the national systems of cities, the significant differences among the various cities, and the forces contributing to their unique problems.

**304 Urban Systems: Public Facilities and Service Delivery.** Semester course; 3 lecture hours. 3 credits. A study of the patterns of public service delivery by municipal and regional government agencies. The course analyzes the environment of service agencies, including the economic background, the politics of public choice, and the sociology of service delivery. The effect of particular service choices on the network of social groups in the urban setting is examined. Attention is given to how the form of government and degree of centralization or decentralization affects service priorities and delivery.

**306 The Urban Economic Base.** Semester course; 3 lecture hours. 3 credits. An examination of the manner in which the urban community is structured as a microeconomy; the requirements for continued economic growth; the urban economic hierarchy; and the differences of economic base development as these are exhibited from place to place. The role of the industrial park and the industrial district; the development of the CBD; the need for labor training as a community response; and the role of the planner as an agent of economic development.

**310 Introduction to Public Planning.** Semester course; 3 lecture hours. 3 credits. Introduction to theory and practice of governmental planning in the U.S. with emphasis on urban and regional planning. Survey of the

history of urban planning, the current planning practice at the local level, and the ethical responsibilities of planners. This course is designed to give students an understanding of the meaning and form of governmental intervention into social and economic systems.

**313 Urban Research and Field Methods.** Semester course; 1 lecture and 4 laboratory hours. 3 credits. Prerequisite: permission of instructor. Methods of data collection, organization, and updating; the use of secondary information; applications of elementary statistical analysis and of graphic and cartographic analysis. (See page 40 for laboratory fee).

**314 Urban Models and Evaluation Procedures.** Semester course; 1 lecture and 4 laboratory hours. 3 credits. Prerequisite: permission of instructor. Examines the development of social and economic indicators and projection techniques. Analyzes the assumptions and applications of simulation, modeling, and evaluation procedures. (See page 40 for laboratory fee).

**321/Economics 321 Urban Economics.** Semester course; 3 lecture hours. 3 credits. Prerequisite: ECO 203. An introduction to urban economics, with an emphasis on the economics of agglomeration and the role of externalities in the urban economy. Economic analysis of the provision of urban politically fragmented areas.

**327/Political Science 327 Contemporary Urban Problems.** Semester course; 3 lecture hours. 3 credits. A study of urban affairs with particular references to complex urban problems. An inventory will be made of contemporary urban problems and of devices for dealing effectively with them. Special attention will be given to new concepts, such as multi-jurisdictional planning.

**328/Political Science 328 Seminar in Urban Problems and Solutions.** Semester course; 3 lecture hours. 3 credits. Prerequisite: URS 327 or permission of instructor. Continuation of URS 327 with emphasis upon alternative approaches to the amelioration or solution of urban problems.

**331 Environmental Systems.** Semester course; 3 lecture hours. 3 credits. Elements of the physical environment as affected by man. The impacts of resource management activities and urban settlements on atmospheric, terrestrial, and hydrologic life support systems. The delimitation of regions and subareas for physical planning purposes.

**332 Environmental Management.** Semester course; 3 lecture hours. 3 credits. Prerequisite: permission of instructor. Perspectives on the effective management of energy, water, scenic, and recreational resources; natural hazards; and pollution in an urban setting.

**337/Afro-American Studies 337 Urbanization and Blacks: A Cross-Cultural Comparison.** Semester course; 3 lecture hours. 3 credits. Comparison and evaluation of past and contemporary urbanization patterns of black people primarily in Africa and America, their current social, economic, and political

problems, and the range of solutions being proposed for dealing with them.

**352 Cartography.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Introduction to the compilation and production of maps. Deals with scale, projections, map symbology, map reading, cartographic drafting techniques, map compilation, map design, and the preparation of cadastral, topographic, and land use maps.

**397-398 Independent Study.** Semester course; 2 or 3 lecture hours. 2 or 3 credits. Under supervision of a faculty advisor, whose consent is required to register, study a topic of concern to the student. Junior or senior standing is required.

**411 Urban Public Policy-Making Processes.** Semester course; 3 lecture hours. 3 credits. A study of the dynamics of conflict resolution in behalf of and within the urban community; the manner in which competing interests are articulated and aggregated in attempts to shape urban public policy, the various levels and kinds of governmental machinery designed to resolve the conflicts.

**412 Metropolitan and Regional Public Management.** Semester course; 3 lecture hours. 3 credits. Examines the relationship between metropolitan growth and the fragmentation of governmental systems; assesses capacity of fragmented governmental systems to formulate rational public policy in relation to forces impeding or facilitating political integration of a metropolitan area; evaluates mechanisms designed to reduce governmental fragmentation.

**414 Techniques of Mapping and Cartographic Design.** Semester course; 1 lecture and 2 laboratory hours. 2 credits. Prerequisite: permission of instructor. Methods of map compilation, map design, use of maps, geographic base files, and computer cartography in urban planning.

**415 Air Photo and Remote Sensor Interpretation.** Semester course; 1 lecture and 2 laboratory hours. 2 credits. Collection of data from aerial photography and other remotely sensed materials. Deals with introductory photogrammetry, object recognition, stereograms, area measurement, and mapping from aerial photos in the planning process.

**422 Programming and Budgeting.** Semester course; 3 lecture hours. 3 credits. An examination of the manner in which governments determine program priorities and allocate public resources to carry out these programs. Special consideration is made of the need to establish long-term planning policies so that orderly funding can be realized.

**432 Problems in Urban and Regional Planning.** Semester course; 3 lecture hours. 3 credits. Regional planning concepts. Trends in urbanization and the planning responses.

**436 Urban Poverty Law.** Semester course; 3 lecture hours. 3 credits. Examines and evaluates developing case law and selected legislation in areas of special

concern to low and moderate income groups; legal services, public welfare law, labor law, housing law, family law, consumer law, and criminal procedure.

**440 Senior Seminar: The Good City.** Semester course; 3 lecture hours. 3 credits. Prerequisite: senior standing. Readings, discussion, and individual research into "the good city" as it is expressed theoretically and practically. Perspectives from the arts and humanities, as well as the social sciences, are brought to bear on the normative question, "What is the good city?". A research project is a requirement.

**452 Urban Transportation Systems.** Semester course; 3 lecture hours. 3 credits. Prerequisite: permission of instructor. An examination of urban requirements for mobility, transportation systems, problems of traffic, mass transit, and new concepts for moving people and goods.

**461 Public Housing and Urban Renewal.** Semester course; 3 lecture hours. 3 credits. A study of the critical shortage of adequate shelter for low income groups; the response of the federal government to these needs; and evaluation of public housing and the Model Cities Program; and the association between homes and jobs.

**471 Introduction to the Study of the Future.** Fall semester; 3 lecture hours. 3 credits. Introduction to the study of the future; considers the perspectives, assumptions, and forecasts of futurists and the methods and tools of future research; examines those forces which are presently shaping the future environment and addresses issues of paramount importance in the '70's and '80's.

**472 Alternative Futures and Urban America.** Spring semester; 3 lecture hours. 3 credits. Prerequisite: URS 471. Introduction to the study of the future. An application of the future's literature to urban issues over the next 25 years; evaluates theories of urbanization in light of trend, forecasts, and probable urban futures; examines the role of forecasting in formulating urban policy; and addresses the issues and strategies involved in managing urban change.

**481 Land Use and Site Planning.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. The needs of natural systems and human building needs will be analyzed through site requirements of various urban and rural developments. Graphic analysis and techniques will be utilized in the laboratory to develop site plans for different purposes.

**491 Seminar in Studio: The Good City.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: senior standing. An examination of various physical communities and their relationship to social, economic, and political systems. Evaluation of the translation of social theory into physical form will be conducted in a seminar which includes reading, discussions, and criticisms. Exercises in the studio will provide for personal expression of the readings in graphic form and for individual defense of these solutions.

**492 Planning Studio.** Semester course; 6 laboratory hours. 3 credits. Prerequisite: URS 481. Designed to provide a practical team experience in the preparation of a topical plan. Definitions and formulations of a planning project, preparations of a work program, development of a project proposal, collection and analysis of pertinent data, development of plan alternatives, plan preparations, and defense will constitute the course development.

**498/Political Science 498 Urban Government Internship.** Semester course; 150 clock hours in a local legislative body or administrative agency. 3 credits. May be repeated once for a maximum total of 6 credits. Prerequisites: POS 331 (formerly 402), URS 411, and POS 321 or URS 421, and approval of selection committee. Under supervision of a faculty committee and a field supervisor, the internship is designed to present opportunities for qualified students to acquire exposure to aspects of public decision-making processes by participation in (1) local legislative bodies of the Richmond metropolitan area, (2) local and regional administrative agencies, commissions, and boards, and (3) private organizations that have demonstrated interest in local government and politics.

## PART X—School of Education

CHARLES RUCH  
Dean  
ILA MARTIN  
Assistant Dean

The School of Education provides professional preparation for students planning to teach in elementary and secondary public schools—with a particular orientation toward urban education. Programs of teacher education combine comprehensive studies in general education with professional preparation and concentration in special fields of study. Field-based activities are basic to all programs in teacher education. Each program is designed to contribute to both the personal and professional development of the prospective teacher.

### DEGREE PROGRAMS IN TEACHER EDUCATION

The preparation of teachers is a joint responsibility of staff in both the subject fields and professional education, with curricula planned cooperatively by the various departments and the School of Education. Bachelor of Science degrees are awarded in elementary education, distributive education, secondary education, physical education, and special education. Bachelor of Fine Arts degrees are awarded in art education and theatre education, while

Bachelor of Music Education degrees are awarded to those completing requirements in music.

Students fulfilling degree requirements in any one of the fields of study listed above are eligible to receive the collegiate professional certificate from the Virginia State Department of Education when recommended by the School of Education. This certificate is a five-year renewable certificate which fulfills the basic requirements for teaching in the public schools of Virginia. State teaching scholarships are available for those who will teach at least one year in the public schools of Virginia. For information relating to scholarships or requirements for endorsement for teaching or requirements for renewal of certificates, the prospective student is advised to write or call the dean of the School of Education or the Division of Teacher Certification in the Virginia State Department of Education in Richmond.

### UNDERGRADUATE DEPARTMENTS AND PROGRAMS:

- Elementary Education
  - Early Childhood Education (certificate program)
  - Elementary Education (B.S. degree)
  - Library Science (certificate program)

**Health and Physical Education**

Physical Education (B.S. degree)

**Secondary/Post Secondary Education**

Distributive Education (B.S. degree)

**Secondary Education (B.S. degree)**

Biology

Chemistry

English

French

History and Social Science

Mathematics

Physics

Science

**Special Education (B.S. degree)****GRADUATE DEGREES**

Graduate programs leading to the Master of Education degree are available in administration and supervision, adult education, biology education, counselor education, English/English education, elementary education, distributive education, mathematics education, and special education (emotionally disturbed, learning disabilities, and mental retardation). For details see graduate bulletin available from the School of Education, Office of Student Services, Virginia Commonwealth University, Richmond, Virginia 23284.

**ADMISSION AND GRADUATION REQUIREMENTS**

Undergraduate students who are in good standing at Virginia Commonwealth University shall be permitted to transfer as degree-seeking students to programs in teacher education. Students wishing to enter a degree program in teacher education must file an official change of major form with the appropriate degree program wherein degree status is sought. Transfer students accepted for admission to the university are also eligible to enter degree programs in teacher education.

Graduation from a particular degree program in teacher education shall be in accordance with procedures and standards established by the administration and faculty and shall be in accordance with university regulations.

Admission to a degree program in teacher education shall not be construed as a guarantee to graduation or to teacher cer-

tification granted by the State Department of Education. The administration and faculty reserve the right to evaluate continually each degree candidate in accordance with standards and regulations established by the administration and faculty, and to refuse graduation from a degree program, as well as to refuse to endorse an individual for state certification, where evaluations indicate an absence of qualities necessary for functioning successfully as a teacher.

In addition to a specified minimum grade point average, student evaluations will include such criteria as overall performance in the professional education sequence as well as certain behaviors and attitudes thought to be related to success in teaching, as exhibited over the duration of the degree program.

The administration and faculty reserve the right to counsel out of any degree program students whose overall performance is deemed unacceptable, or who are convicted of an offense that would effect their successful performance as public school teachers.

Students in teacher education degree programs are expected to complete a minimum of 124 credits and to maintain a minimum of a 2.0 average in all course work attempted. Students failing to meet the latter requirement in the senior year may not be permitted to enroll for student teaching.

Suggested courses of study for various degrees and subject fields will be found under appropriate departmental headings in this catalog. All students planning to enter teacher preparation programs must register as degree-seeking students.

**APPROVED PROGRAMS AND CERTIFICATION RECIPROCITY**

The National Association of State Directors of Teacher Education and Certification (NASDTEC) has established a national system of reciprocity in teacher certification based on successful completion by the candidate of a teacher education program approved on the basis of nationally recognized standards. Over 30 states, including Virginia, have incorporated the standards. All undergraduate degree programs offered



by the School of Education have approved program status with the State Department of Education and are thus a part of the NASDTEC Certification Reciprocity System.

As mandated by the General Assembly, under the Standards of Quality, a fifth year internship will be required of students seeking certification in 1982. Information regarding internships will be available through the Office of Student Services.

### SERVICE PROGRAMS

In addition to the degree programs, the School of Education sponsors a number of service programs that are designed to support the degree programs by providing significant field and research opportunities for School of Education students and to provide meaningful services to the Richmond area community. These service programs include the Reading Center, the Child Study Center, the Adult Learning Center, and Project Head Start.

The Reading Center has a multiple role. It provides reading improvement instruction for incoming freshmen whose test scores indicate a need for basic skill improvement. In addition, the Reading Center performs a service to the community by offering diagnostic and remedial aid to children. Another role is that of giving teachers practical experience in working with children who need diagnosis and remedial assistance. The Reading Center also acts as a materials center for teacher trainees, permitting them to see a variety of instructional and testing materials.

The Child Study Center sponsors three primary services: (1) opportunities for guided activities with children to enhance the professional education of prospective teachers, psychologists, and social workers, with particular emphasis on students in the School of Education; (2) services to the community to supplement the child study services available in local systems; and (3) provision of a research base for the comprehensive study of children.

The School of Education, in cooperation with the Richmond Adult Basic Education Program, operates two adult learning centers, one on the Medical College of Virginia

Campus and the other on the Academic Campus. These modern, well-equipped centers utilize the latest advances in educational technology, and individualized instruction with flexible scheduling is featured. Remedial and enrichment non-credit study programs are offered in a variety of areas to VCU employees and college students.

Project Head Start is an extension of the Office of Child Development, Department of Health, Education, and Welfare, Region III. The purpose of Head Start is to improve the health and physical ability of children from low-income families, to develop their ability to relate to others, and to provide social services for their families. Two state training officers give training and technical assistance for 11 full-year and 12 summer Head Start programs.

### DEPARTMENT OF ELEMENTARY EDUCATION

ESTHER ZARET

Chairperson of the Department

Stanley Baker / Mary Beaven  
Nancy Boraks / Dolores Braxton  
Dorothy Burton / Carmen Chambers  
Patricia Duncan / Gladys Fleming  
Joan Fulton / James Hodges  
William Judd / Marvin Kopit  
Frederic Linder / Peter Madden  
Joseph Mahony / Ila Martin  
Alice McCartha / Barbara Myatt  
Daisy Reed / Richard Rezba  
Guy Rose / Charles Sharman  
Nyles Stauss / William R. Swyers  
Warren Strandberg / Isaac Templeton  
John Van de Walle

The Department of Elementary Education provides pre-service preparation for teachers of children in elementary school. Programs are available which lead to certification as elementary teachers, early childhood school teachers, and as elementary school librarians.

A student begins a degree program in elementary education through meetings with an advisor assigned by the department. This advisor-advisee relationship is maintained throughout the period of study at the university. **A student and his/her advisor are expected to play a major role in the development of the student's individual program.**

As part of the program-planning process,



students have an opportunity to explore, identify, and clarify their personal and professional needs. Individual programs will be based on individual assessment by the student and advisor.

Students enrolled in the programs are expected to be involved in both on- and off-campus activities. Field-based activities are basic to all elementary education programs. Included as clinical experiences are both school and community activities. Teaching and learning in the program will include both directed and independent studies.

### Curriculum for Elementary Education, Including Early Childhood Education (B.S.)

#### Arts and Sciences (a minimum of 48 hours)

English 101  
English 202  
English 201  
Speech 408  
American History 103  
Economics 203  
Social Science (6 credits)  
Life Science (3 credits)  
Physical Science (3 credits)  
Physical Education for Teachers 390  
Health Education for Teachers 386  
Art Education for Teachers 301  
Music Education for Teachers 485

#### Professional Education

Block 1 (6 credit hours)  
EDU 320—Introduction to Teaching  
Block 2 (6 credit hours)  
EDU 321—Exploring Teaching Models  
Block 3 (6 credit hours)  
EDU 322—Planning for Teaching (Early Childhood)  
EDU 325—Planning for Teaching (Elementary Education)  
Block 4 (6 credit hours)  
EDU 323—Dimensions of Education  
Block 5 (6 credit hours)  
EDU 390—Helping Children Develop Communication Skills  
Block 6 (9 credit hours)  
EDU 391—Helping Children Learn About Math, Science, and Reading  
Block 7 (15 credit hours)  
EDU 483—Extended Practice Teaching (Early Childhood)  
EDU 484—Extended Practice Teaching (Elementary Education)  
Extended Teaching Experience with Additional Responsibilities for Diagnosing the Needs of Children.  
Minimum number of hours required for graduation is 124.

### Program in Elementary Education

Students completing the elementary program will be certified to work with children between the ages of eight and 12. The student learns to help children develop the knowledge, skills, attitudes, and values essential to them throughout their lives.

### Program in Early Childhood Education

Students completing the early childhood program will be certified to work with children between the ages of three and eight. The program is directed toward helping children develop positive attitudes towards themselves and their world.

### Program in Library Science

Students completing the program in library science will learn to help children and teachers develop their abilities to explore ideas, acquire experiences, and formulate and broaden concepts through books and other resource materials.

## DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION

GEORGE B. DINTIMAN

Chairman of the Department

Edward Allen / Charlotte Birindelli  
Fred Browning / Robert Davis  
Barney Groves / G. David Magill  
Linda Krumme / Judith Newcombe  
Jude Pennington / Elizabeth Royster  
Jack Schiltz / Ronald Tsuchiya  
Frances Wessells

The Department of Health and Physical Education has as its major responsibilities: (1) the professional preparation of physical education teachers and coaches; (2) the conduct of the service program to meet the university graduation requirement of majors in various areas; and (3) the administration of a broad intramural, extramural, and recreational sports program for all students and faculty.

### Curriculum in Health and Physical Education for Men and Women

*Credits*

BIO 101-102; L101, L102; 205, 206 .....	16
ECO 203 .....	3
ENG 101-102; 201, 202 or 203, 204 .....	12
HIS 103 or 104 .....	3
MAT 111, STA 213, or MAT 112 .....	6

PSY 101 .....	3
Social Science Elective .....	3
EDU 300, 301 (or PSY 301, 302, 305), 485-486 ..	18
PHE (Activities)	
Co-ed from 120, 130, 140, 151, (or 250, 251), 167, 168, 230, 232, 234 .....	11
Men only: 133, 141, 142, 233, 372, (or 373) .....	6
Women only: 146, 160, 245, 246 .....	6
PHE 190, 391, 392, 397, 398, 439, 492, 493 .....	23
HEN 382, 385, 480, 487 .....	12
Electives .....	11

### Physical Education Courses for Non-majors

Students in various departments who are required to complete four semester hours may elect as many courses as desired after fulfilling the basic requirement. Students who are required to take one credit of physical education for graduation should select one of the two courses in AREA I: FOUNDATIONS. Those who are required to complete two or three credits for graduation should select one course from AREA I: FOUNDATIONS and one or two courses from AREA III: INDIVIDUAL AND DUEL SPORTS or AREA IV: RECREATIONAL ACTIVITIES.

Students who are required to complete four credits of physical education should select one course from AREA I: FOUNDATIONS, one course from AREA III: INDIVIDUAL AND DUAL SPORTS, and two courses from AREA IV: RECREATIONAL ACTIVITIES or AREA V: TEAM SPORTS.

Both men and women are required to purchase a regulation style uniform for participation in the program.

### AREA I—Foundations—1 lecture and 2 laboratory hours. 1 credit.

Designed to enable the student to understand the physiological, psychological, and sociological foundations of physical activity. Understanding the effect of activity on the human organism and participating in conditioning and motor activities designed to improve fitness and movement skills in the basis of the course.

- PHE 101 Foundation of Physical Activity
- PHE 102 Fitness and Weight Control

### AREA II—Restricted Activities—3 laboratory hours. 1 credit.

Students with physical limitations preventing participation in other areas are advised by the health service office to enroll in restrictive activities. Emphasis is placed on physical conditioning and development of recreation skills within the limitations imposed by the restriction.

- PHE 103, 204 Restricted Physical Education (Coeducational)
- PHE 104, 203 Restricted Physical Activity (Coeducational)

### AREA III—Individual and Dual Sports—3 laboratory hours. 1 credit.

- PHE 106 Fencing (Coeducational)
- PHE 107 Badminton (Coeducational)
- PHE 108 Survey of Gymnastics
- PHE 109-M Handball, Paddleball, Squash (Men)
- PHE 111 Self Defense (Coeducational)
- PHE 112 Tennis (Coeducational)
- PHE 113 Wrestling (Men)

### AREA IV—Recreational Activities.

- PHE 114 Bowling (Coeducational)
- PHE 115 Horsemanship (Coeducational)
- PHE 116 Archery (Coeducational)
- PHE 117 Golf

### AREA V—Team Sports—3 laboratory hours. 1 credit.

- PHE 125 Basketball
- PHE 126 Flag Football
- PHE 126 Rugby
- PHE 127 Field Hockey
- PHE 128 Soccer
- PHE 129 Lacrosse
- PHE 137 Volleyball
- PHE 138 Team Handball
- PHE 139 Track and Field

### AREA VI—Aquatics—3 laboratory hours. 1 credit.

- PHE 150 Beginning Swimming
- PHE 151 Intermediate Swimming
- PHE 155 Skin and Scuba
- PHE 250 Lifesaving
- PHE 251 Water Safety Instructors Course
- PHE 256 Synchronized Swimming
- PHE 258 Aquatic Sports and Games
- PHE 356 Organization and Administration of Aquatic Activities
- PHE 358 Theory and Technique of Competitive Diving

## AREA VII—Dance—3 laboratory hours. 1 credit.

PHE 160 Elementary Modern  
PHE 163 Elementary Ballet  
PHE 165 Fundamentals of Tap Dancing  
PHE 168 Folk and Square  
PHE 260 Intermediate Modern  
PHE 263 Intermediate Ballet  
PHE 265 Fundamentals of Ballroom Dancing  
PHE 360 Advanced Modern

## AREA VIII—Experimental Physical Education—3 laboratory hours. 1 credit.

Designed as an elective to provide students with the opportunity to serve as voluntary subjects in studies related to their specific areas of interest and/or difficulties in the general areas of exercise physiology, health problems, health and exercise attitudes, motor learning, and methodologies. Studies are designed to uncover new information through controlled and experimental research as well as provide subjects with valuable insight and understanding.

PHE 100 Experimental Physical Education  
(Coeducational)  
PHE 200 Experimental Physical Education  
(Coeducational)

## DEPARTMENT OF SECONDARY/POST SECONDARY EDUCATION

RICHARD S. VACCA

Chairman of the Department

James W. Bailey / Michael T. Barnes  
Frances M. Briggs / Michelin Britton  
Samuel Craver / Vivien K. Ely  
William F. Goggin / Thomas Hephner  
Gerald C. Llewellyn / C. Michael Lohr  
Carroll A. Londoner / Barry Lumsden  
Alan M. McLeod / John S. Oehler  
Howard A. Ozman / Walter Ramey  
Ronald Sherron / Rebecca Strydesky  
Martin Tarter

### Program in Secondary Education

The Program in Secondary Education provides pre-service preparation for prospective secondary school teachers. Individual programs meet the Collegiate Professional Certification requirements of the Commonwealth of Virginia. Bachelor of Science degrees are offered in the liberal arts fields of biology, chemistry, English, French, history and social studies, mathematics, physics, science, and dis-

tributive education. Most professional education courses are taken during the junior and senior years.

For bachelors programs in art, theatre, and music see page 66, 73, and 69, School of Arts; for Bachelor of Science program in business see page 161 School of Business; for Bachelor of Science programs in distributive education and physical education see pages 199 and 196 under School of Education.

### I. Bachelor of Science Programs

#### Administered by Secondary Education

Bachelor of Science degree programs in secondary education are provided for qualified students who are interested in teaching in middle schools, junior high schools, and secondary schools. These programs are administered by the School of Education. All programs except distributive education are conducted in cooperation with departments in the School of Arts and Sciences.

Upon successful completion of requirements and on the recommendation of the School of Education, students enrolled in Secondary Education programs can receive a Collegiate Professional Teaching Certificate from the Virginia Department of Education.

### II. Programs in Secondary Education

Degree programs in secondary education total 124 semester hours (minimum). These credits are distributed into four categories of requirements which must be met by all students. These categories are as follows:

- A. **General Education** (39 semester hours) which includes Humanities (12 semester hours), Social Science (12 semester hours), Laboratory Science and Mathematics (11 semester hours), and Health and Physical Education (4 semester hours).
- B. **Professional Education** (15 semester hours) which includes Human Growth and Development (3 semester hours), Curriculum and Methods (6 semester hours), and Student Teaching (6 semester hours).
- C. **Student Teaching** Student teaching is completed during the final year of study. Generally, students are required to attend a seminar held at the university once a week during the student teaching experience.
- D. **Program Area** The number of semester hours credit varies from one degree program to

another. Generally, and in addition to the total hours in A and B above, the totals for each program are as follows:

Distributive Education, 62 semester hours.

English Education, 36 semester hours.

Foreign Language Education, 30 semester hours in French, 18 semester hours in a second foreign language.

Mathematics Education, 39 semester hours.

Science Education (each program requires a total of 62 semester hours in science and mathematics).

Minimum semester hours for each program as included in the above 62 semester hours are: biology education, 32 semester hours; chemistry education, 33-34 semester hours; physics education, 24 semester hours; general science education, 30 semester hours (8 semester hours in biology, 8 semester hours in chemistry, 8 semester hours in physics, and 6-8 semester hours in mathematics).

Social Science Education, 58 semester hours.

### III. Individual Programs and Program Planning

Individual degree programs are planned for each student. Upon admission to a degree program in secondary education, each student is assigned an advisor who will assist the student in program planning. Upon acceptance, students should contact the department for assignment to an advisor.<sup>1</sup>

**A. Transfer Credit** The department will endeavor to evaluate for possible transfer all college-level courses completed at other institutions. Credits accepted in transfer will generally be applied toward fulfillment of general education requirements outlined above.

**B. Competencies** Each program in the secondary education department is competency based. Students can meet competency requirements by taking university courses. It is possible, however, for students to meet competency requirements in a variety of ways other than by taking courses (for example, CLEP and College Board Examination Advance Placement Tests, and departmental competency exams). Each student and advisor will decide on the best means for accomplishing required competencies.\*

**C. Urban Education Focus** In addition to the urban focus of each degree program, the department

offers a specialized opportunity for intensive training in an inner-city school situation. This is called CUE (Cooperative Urban Education).

### IV. For additional information regarding each degree program, contact the following faculty members at 770-8296.

Distributive Education, Vivien K. Ely  
English Education, Alan M. McLeod,  
William Goggin

Foreign Language Education and CUE  
William Goggin

Mathematics Education, Michael Lohr

Science Education, Gerald Llewellyn

Social Science Education, Martin Tarter

Students interested in the specialized CUE Program mentioned above should contact William Goggin (770-8296).

### V. Student Handbook and Advising

More extensive information may be obtained in the *Student Handbook for Program Planning*: secondary education programs. This handbook may be obtained in the department office, Oliver Hall, Room 4046.

Because the programs are arranged around competencies rather than specific courses, students must plan their programs in cooperation with the appropriate advisor in the Department of Secondary/Post-Secondary Education. Students are assigned to appropriate advisors by the department chairman.

### DEPARTMENT OF SPECIAL EDUCATION

RIZPAH L. WELCH

Chairman of the Department

Elise Blankenship / Nancy H. Fallen

Howard G. Garner / George Giacobbe

Ada Hill / William A. Horn

Maureen Larkin / Jean Lokerson

Thomas L. Lolley / Phillip J. McLaughlin

Om Datt Parashar / Judith N. Powell

Robert J. Schoonover / Paul Wehman

The Department of Special Education has developed a philosophy that views special education as an integral part of general education. As such, teachers of the mentally retarded need some of the basic competencies of teachers in general education as well as specific preparation for effectively teaching the mentally retarded.

<sup>1</sup>Important: this procedure provides the student with flexibility in selecting courses. There are, however, some required courses and certain sequences of courses that must be followed to maximize the quality of preparation and fulfill certification requirements. It is important for the student to consult with his advisor in the Department of Secondary/Post Secondary Education before registering.

The major objective of the program in the area of mental retardation at the undergraduate level is to prepare teachers at the bachelor's level with the competencies to teach mentally retarded children in public or private settings.

Throughout the program there is continuous integration of the didactic with practical experiences. A great deal of emphasis is placed on the practicum experiences beginning at the sophomore level and continuing through the senior level. Because students will graduate from the program certified to teach across the range of mental retardation (trainable and educable), the student teaching experience will provide for a number of placements to give the student experience on more than one level. (The department has increased the amount of time for the student teaching experience to a full semester in order to accomplish this.) Students initially observe upon placement in a student teaching situation, gradually assuming teaching responsibilities until they reach the point that they can be responsible for the whole program.

Upon completion of the program in mental retardation, students will qualify for the Virginia Collegiate Professional Teaching Certificate with endorsement in special education—mental retardation, K-12.

It is expected that the program will make an impact on education through supplying the school systems and institutions in Virginia with teachers who can give quality instruction to mentally retarded individuals, thus assisting in the upgrading of programs in the schools while at the same time meeting the demands of the state for teachers for the various levels of classes provided for the mentally retarded.

Optionally dual preparation programs in special education—early childhood education, special education—elementary education, and special education—secondary education, can be developed with the approval of the student's advisor and the head of the department involved.

## Curriculum in Special Education

	<i>Credits</i>
Humanities .....	18
Social Science .....	24
(12 credit hours must be taken in psychology and sociology)	
Laboratory Science and Mathematics .....	17
Health and Physical Education .....	4
General Professional Education .....	15
(EDU 300, 301 or 302, 350 or 351, 415 or 420 or 437 or 444, and 426)	
Special Education .....	15
(EDU 451, 456, 467, and 468)	
Field Experiences .....	15
(EDU 310, 487, 488, 490)	
Related Areas .....	18
<b>TOTAL HOURS</b>	<b>126</b>

## DEPARTMENT OF EDUCATIONAL LEADERSHIP AND PERSONNEL DEVELOPMENT

WILLIAM A. BOST

Chairman of the Department

Andrew Beale / Esther Davis

Jack Duncan / Robert Fleming

Barbara Fuhrmann / James Gumaer

Charles Ruch / Sally Schumacher

John Seyfarth

The Department of Educational Leadership and Personnel Development is primarily a graduate department providing advanced programs for the preparation of school counselors, administrators, and supervisors. The department provides no degree programs for undergraduates, although a limited number of elective courses are available to the undergraduate.

## Elective Courses Available to Undergraduates

	<i>Credits</i>
EDU 303 Focus on Choice for Women .....	3
EDU 401 Pupil Evaluation .....	3
EDU 402 Guidance .....	3
EDU 403 Guidance for Exceptional Children .....	3
EDU 414 Parent-Child Relations .....	3

## COURSES IN DISTRIBUTIVE EDUCATION (DIE)

**105, 106 Introduction to Teaching Distributive Education.** Semester courses; 2 lecture and 2 laboratory hours. 3, 3 credits. Overview of distributive education, vocational education, career education, and their relationships. Introduction to the profession of distributive education teacher-coordinator and its teach-

ing, guidance, coordination, public relations, administrative, and youth organization sponsorship functions. Introduction to the high school and adult curriculums with emphasis on the social and basic skills competency development areas. Field-based experiences for application of learning.

**201, 202 Vocational Application in Distributive Education.** Semester courses; 2 lecture and 2 laboratory hours. 3, 3 credits. The guidance and coordination functions of the distributive education teacher-coordinator. Selection, placement, and vocational guidance of student/learner. Development of community relationships. Relating occupational experiences to classroom learning. Concentration on sales promotion and product/service technology marketing competency areas of the distributive education curriculum. Field-based experiences for application of learning.

**300 Directed Occupational Experience.** Both semesters; 75 hours work experience in a distributive business for each credit. 1-8 credits. Maximum of 2 credits per semester, repeatable to a total of 8 credits. Students analyze the firm's organization and operation; develop an understanding of the requirement for entering, adjusting, and advancing in a chosen occupational field. Weekly seminar for application of job experiences to the distributive education high school curriculum.

**302, 303 Management of Distributive Education Program.** Semester courses; 2 lecture and 2 laboratory hours. 3, 3 credits. The public relations and administrative functions of the distributive education teacher-coordinator. Organization and operation of the high school and adult distributive education programs. Collection and analysis of community, student, and graduate data. Development of community relationships and advisory committees. Program planning, reporting, and evaluation. Application of marketing research and business operation competency areas of the distributive education curriculum. Field-based experiences for application of learning.

**405, 406 The Teaching/Learning Process in Distributive Education.** Semester courses; 2 lecture and 2 laboratory hours. 3, 3 credits. Planning, student assessment, selection, and evaluation of learning outcomes. Application of merchandising and management technical competency areas. Field-based experiences for application of learning.

## COURSES IN EDUCATION (EDU)

**100 Reading and College Study Skills.** Semester course; 3 lecture and laboratory hours. 3 credits. The course is designed to provide students with help in attaining proficiency in reading and study skills. Through individually designed instructional programs, students are given assistance in developing tools for effective independent learning. The instructional sequence is designed around regular course requirements so that transfer of skills training will be automatic and immediate.

**101 Advanced Reading, Study, and Communication**

**Skills.** Semester course; 3 lecture and laboratory hours. 3 credits. Prerequisite: EDU 100. This is a second-semester course designed to acquaint students with the more advanced skills of reading comprehension. Participants are taught to identify instructional objectives and to direct their study behavior toward the meeting of those objectives.

**300 Foundations of Education.** Semester course; 3 lecture hours. 3 credits. The historical, sociological, and philosophical backgrounds of modern educational theories and practices. The aim of the course is to help the student develop a mature approach to a basic philosophy of education in the modern world.

**301 Human Development and Learning.** Semester course; 3 lecture hours. 3 credits. A study of human growth and development; the nature of learning; and observation of children in school and community situations.

**303 Focus on Choice for Women.** Semester course; 3 lecture hours. 3 credits. Prerequisite: permission of instructor. A consideration of the problems of discontinuity in life patterns of women and the current educational and occupational opportunities for women especially for those returning to the classroom or employment after a period of homemaking. (No more than about half the class shall be part-time students.)

**310 Supervised Practicum.** Semester course; 1-3 credits. Individually planned observations, tutorials, and small group participation in the schools and other group situations involving children. Includes weekly seminar.

**320 Introduction to Teaching, Block I** Semester course; 6 credits. An integrated study of human growth and development, the nature of learning as it relates to instruction in the schools, and observation of children in school and community situations. The teacher as a person and the teacher's influence on the classroom is a major focus.

**321 Exploring Teaching Models, Block II** Semester course; 6 credits. A series of planned observations, tutorials, and small group participation in schools and other group situations involving children. An accompanying topical seminar will assist students in developing appropriate observation skills and techniques.

**322 Planning for Teaching (Early Childhood), Block II** Semester course; 6 credits. A study of the early childhood programs and the elementary school. An emphasis on curriculum development and the study of the process of applying principles and techniques of teaching in all areas of learning in the elementary school. The selection, preparation, and use of media, material, and equipment will be an emphasis of this block. Extensive off-campus activities integrated with on-campus classes and seminars.

**323 Dimensions of Education, Block IV** Semester course; 6 credits. An integrated study of major educational theories and practices. Social studies content will be the focal point for examining educational theories and practices as well as planning social studies curricula in the schools. The on-campus

seminar is linked with a community practicum designed to provide students with exposure to the community as a learning resource for the public school curricula.

**325 Planning for Teaching (Elementary Education).** Block III Semester course; 6 credits. A study of the elementary school. An emphasis on curriculum development and the study of the process of applying principles and techniques of teaching in all areas of learning in the elementary school. The selection, preparation, and use of media, materials, and equipment will be an emphasis of this block. Extensive off-campus activities integrated with on-campus classes and seminars.

**351 Children's Literature I.** Semester course; 3 lecture hours. 3 credits. Designed to give students an appreciation of values of children's literature; includes biography, fable, myth, traditional and modern fanciful tales, and poetry, as well as a survey of the history of children's literature.

**370 Behavior Management of the Mentally Retarded.** Semester course; 3 lecture hours. 3 credits. A discussion of principles and strategies used to manage the behavior of the mentally retarded. The students will learn how to develop, implement, and evaluate a behavior management program for the mentally retarded.

**390 Children Learning to Communicate.** Block V Semester course; 6 credits. A study of the history and values of children's literature and a study of the teaching techniques and materials for the developmental teaching of oral communication and written expression. The attention to the child's development in reading throughout his elementary school experience is the integrating theme. Experiences in application in field setting required.

**391 Children Learning About Mathematics, Science, and Reading.** Block VI Semester course; 9 credits. An emphasis on the methods and techniques of teaching science and mathematics in the elementary schools. Field experiences will be designed to augment and integrate the science and mathematics components with respect to providing students with experiences in imparting these concepts and skills to children.

**400 Independent Study.** Semester course; 1-6 hours. 1-6 credits. Opportunities are provided for supervised research and independent study in selected areas. Designed for advanced students. All work offered on an individual basis with the approval of instructor and departmental chairman.

**401/501 Pupil Evaluation.** Semester course; 3 lecture hours. 3 credits. Principles and procedures in evaluating pupil growth in skills, attitudes, and understandings; construction and analysis of teacher-made tests; administration of group tests. Interpretation of group and individual tests with emphasis on measurement problems of exceptional children.

**402/502 Guidance.** Semester course; 3 lecture hours. 3 credits. An introductory course for all students in *counselor education*. Includes a survey of pupil

personnel services and places special emphasis on those services associated with the guidance program. The course is designed for both elementary and secondary counselors and is a prerequisite to all other courses offered by the department of counselor education.

**403 Guidance for Exceptional Children.** Semester course; 3 lecture hours. 3 credits. Interrelationships of home, school, and community agencies are explored with emphasis on the special education teacher as a guidance worker in the areas of educational, mental, social, and vocational development.

**404 Film as a Teaching Medium.** Semester course; 3 lecture hours. 3 credits. Exploring the film as a teaching resource. The course is designed to familiarize the student with thought provoking films. Over 50 films will be presented. Especially helpful for the English teacher will be exploration of the relationship between film and fiction. The humanities teacher will find a useful repertory of films on topics relating to historical and social questions.

**405 Adolescent Medical and Social Problems.** Semester course; 3 lecture hours. 3 credits. Seminar designed to acquaint those individuals working with an age group from 12 to 21 of the normal physiological and psychological development and medical and adjustment problems. This material will be presented by a series of lectures, case presentations, with group participation. Topics will include drug abuse, under-achievers, sex education, emotional problems, constructive challenges for the education for the adolescent, and the effect of these problems on families of adolescents.

**406 Psychology in the Classroom.** Semester course; 3 lecture hours. 3 credits. An in-service course for classroom teachers. Based on special problems faced by the classroom teacher in testing, reading, speaking, slow learners, emotionally disturbed children, etc.

**407 Educational Media: Utilization.** Semester course; 3 lecture hours. 3 credits. The study and use of audio-visual equipment and aids, and means for using them for more effective presentations to groups.

**408 Approach to Mass Media Instruction.** Semester course; 3 lecture hours. 3 credits. Designed to familiarize prospective teachers with possibilities of utilizing available audio-visual equipment and materials. The emphasis will be on relating audio-visual tools to the study of art. Within the course there is present the opportunity to expand the usage of audio-visual equipment beyond that of merely being a communication tool and to utilize these devices in terms of creative expression.

**409 Educational Television.** Semester course; 3 lecture hours. 3 credits. Emphasis on classroom utilization of educational television with brief historical and philosophical approach to the concept of ETV. Several sessions in the studio at WCVE-TV.

**410 Sex Education for Teachers.** Semester course; 3 lecture hours. 3 credits. Principles, methods, and



content of sex education programs. Designed for teachers and counselors who are concerned with helping children and adolescents understand their sexuality and prepare for successful personal relationships with people.

**412 Aerospace Education.** Semester course; 3 lecture hours. 3 credits. A study of the effects of aerospace operations upon social, economic, and political affairs. Emphasis will be placed upon orienting the educator to help his pupils develop an understanding of the technological aspects of the aerospace field. Teachers will have an opportunity to develop resource units for use in their elementary or secondary school classrooms. Opportunity for flight experience will be provided for those interested.

**413 Advanced Aerospace Education.** Semester course; 3 lecture hours. 3 credits. Prerequisite: EDU 412. See description for EDU 412.

**414/514 Parent-Child Relations.** Semester course; 3 lecture hours. 3 credits. A methods course in parent-child communications and problem solving. Designed to enable parents and parent-educators to understand and relate more effectively with children.

**415 Early Childhood Programs.** Semester course; 3 lecture hours. 3 credits. Prerequisites: EDU 300, 302. The historical and philosophical background of early childhood education; its organization, functions, and recent developments in programs and activities.

**416 Early Childhood Procedures.** Semester course; 3 lecture hours. 3 credits. Prerequisites: EDU 300, 302. The application of principles and techniques of learning in all areas of the curriculum for young children.

**417 Teaching Elementary School Science.** Semester course; 3 lecture hours. 3 credits. Emphasis on the methods and techniques used in teaching science in elementary schools. Background material, course content, and modern uses of science will be stressed to broaden understanding in this field.

**418 Curriculum Planning In Elementary Science.** Semester course; 3 lecture hours. 3 credits. Deals with factors that should be considered when planning a science curriculum. Includes both historical background and review of research.

**420 The Elementary School Curriculum.** Semester course; 3 lecture hours. 3 credits. Prerequisites: EDU 300 and 301 or 302. The historical and philosophical background of the modern elementary school; its organization, functions, and recent developments in programs and activities.

**421 Methods in the Elementary School.** Semester course; 3 lecture hours. 3 credits. Prerequisites: EDU 300 and 301 and 302. The application of the principles and techniques of teaching in all areas of child development and learning in the elementary school.

**422 Teaching Elementary School Mathematics.** Semester course; 3 lecture hours. 3 credits. Methods and techniques used to teach mathematics in elemen-

tary school. Background material, course content, and modern uses of mathematics will be stressed to give the teacher a better understanding of this subject area.

**423-424 Modern Mathematics for Elementary Teachers.** Continuous course; 3 lecture hours. 3-3 credits. Designed to give elementary teachers a better understanding of principles and concepts in modern mathematics.

**425 Teaching Language Arts in Elementary School.** Semester course; 3 lecture hours. 3 credits. A study of teaching techniques and materials for the developmental teaching of oral communication and written expression.

**426 The Teaching of Reading.** Semester course; 3 lecture hours. 3 credits. Prerequisites: EDU 300 and 301 or 302. A study of the major problems of reading instruction with special attention to the individual's development in reading throughout his elementary school experience.

**427 Diagnostic Reading.** Semester course; 3 lecture hours. 3 credits. Prerequisite: EDU 426. An investigation of the various levels of ability to be found in the classroom and the techniques and strategies for their evaluation. Emphasis is placed upon evaluation of reading progress, differentiation of instruction, reading difficulties, diagnostic and prescriptive procedures. Students will participate in supervised laboratory experiences.

**428 Children's Literature II.** Semester course; 3 lecture hours. 3 credits. An extension of the survey of children's literature with emphasis upon non-fiction, biography, and reference books for children. Experiences are directed toward coordinating fictional and informational literature with the content areas of the elementary curriculum.

**429 Movement Education.** Semester course; 3 lecture hours. 3 credits. For teachers of early childhood and elementary education. Emphasis given to the role of movement in the educational program, movement theory, and its implications for curriculum and learning. Major consideration will be given to motor development in young children and its implications for positive self-concepts.

**430 Teaching in Urban Schools.** Semester course; 3 lecture hours. 3 credits. For teachers and administrators in urban situations; emphasis is given to the development of a variety of techniques for assessing the status of urban children and youth and in translating such information into programs.

**431 Creative Teaching in the Elementary School.** Semester course; 3 lecture hours. 3 credits. Designed for early childhood and elementary teachers and administrators. Diversified experiences drawn from various curriculum areas, including the arts. Focus on the creative process and the *role of the teacher* in fostering creativity.

**432 Group and Interpersonal Relations.** Semester course; 3 lecture hours. 3 credits. Utilization of small

group interaction as a vehicle to explore techniques and procedures common to human relations study. Focus on the teaching of interpersonal effectiveness; behavior objective identification; and development of experiences relevant to leadership, communication skills, decision making, and development in effective or humanistic education.

**433 Literature for Adolescents.** Semester course; 3 lecture hours. 3 credits. This course is designed to acquaint the prospective secondary school English teacher with the nature, scope, and uses of adolescent literature. The student is exposed to reading materials designed to meet the varied needs and interests of adolescents in the American high school.

**434/534 Photography in Instruction.** Semester course; 3 lecture hours. 3 credits. Competence in the use of photography as a medium of instruction will be developed. Emphases on the necessary skill, designing, and producing photographic materials for the classroom. Emphasis on the use of photography by school pupils as a means of self-expression.

**435 Problems of Social Studies Instruction.** Semester course; 3-6 lecture hours. 3-6 credits. Prerequisite: permission of instructor and appropriate teaching experience. An in depth investigation into the nature of and alternatives to problems encountered by students while teaching. Developing and evaluating instructional alternatives will be stressed.

**436 The Secondary School.** Semester course; 3 lecture hours. 3 credits. Intensive study of the secondary school and its role and function in American public education with particular attention to problems, trends, and issues.

**437 High School Curriculum.** Semester course; 3 lecture hours. 3 credits. A study of the background and objectives of the modern high school; an examination of basic issues and current trends in curriculum construction and revision.

**438 High School Methods.** Semester course; 3 lecture hours. 3 credits. The application of principles and techniques of teaching in the high school. Emphasis include understanding the adolescent, the learning process, the motivation of learning, and the evaluation of the teaching-learning process.

**439 High School Curriculum and Methods.** Semester course; 6 lecture hours. 3-6 credits. Basic issues and current trends in curriculum are integrated with principles and techniques of teaching.

**440 Principles and Techniques of Teaching High School Sciences.** Semester course; 2 lecture and 3 laboratory hours. 3 credits. Prerequisite: upper division science education major. A treatment of principles and techniques of teaching high school science. Emphases include philosophy of science teaching, appropriate learning principles, curriculum innovations, and diverse methods as applied to the field of science. The interrelationship of the sciences will also be stressed.

**441 Teaching Secondary School English.** Semester

course; 3 lecture hours. 3 credits. Development and organization of English instruction with specific attention to methodology, equipment, materials, and resources.

**442 Teaching Social Studies—Secondary.** Semester course; 3 lecture hours. 3 credits. Examines (1) the demands involved in secondary social studies instruction, (2) preparatory approaches to using academic and professional insights in confronting the demands, and (3) the formulation and implementation of appropriate methodological approaches.

**443 Teaching High School Foreign Languages.** Semester course; 3 lecture hours. 3 credits. Development and organization of foreign language instruction with specific attention to methodology, laboratory and classroom equipment, materials, and resources.

**444/544 The Middle School Curriculum.** Semester course; 3 lecture hours. 3 credits. This course will focus upon an inquiry into the curriculum decision making process as it relates to the education of pre- and early adolescents in the middle school context.

**445 Teaching Secondary School Mathematics.** Semester course; 3 lecture hours. 3 credits. Development and organization of mathematics instruction with specific attention to methodology, equipment, materials, and resources.

**447 Supervised Teaching in Art Education—Elementary.** Both semesters; five days per week for seven weeks at both the elementary and secondary levels. 6 credits. Prerequisites: EDU 301 and AED 401, 402. Classroom experience is offered so that the student may learn to harmonize theory and practice, develop a professional point of view, acquire teaching skills, and gain an understanding of children and how they learn.

**448 Supervised Teaching in Art Education—Secondary.** 6 credits. See EDU 447 above.

**449/549 Developmental Reading in the Secondary School.** Semester course; 3 lecture hours. 3 credits. This course is designed for prospective and practicing secondary school teachers. The teaching procedures will detail methodology for dealing with a variety of reading situations and factors affecting students in the secondary school. The course takes as its focus the development of reading skills rather than emphasizing remedial reading.

**451/551 Survey of Special Education.** Semester course; 3 lecture hours. 3 credits. For majors and non-majors. An overview of the field of special education, identifying exceptional children, programs, facilities, literature, services, and professional workers. A first course for special education majors.

**452/552 Orientation to Speech Pathology.** Semester course; 3 lecture hours. 3 credits. An introduction to the history, scope, and trends in the field of speech pathology to include terminology systems of classifications and concepts of etiology, diagnosis, and therapy.

**453 Teaching High School Foreign Languages.** Semes-

ter course; 3 lecture hours. 3 credits. Development and organization of foreign language instruction with specific attention to the methodology, laboratory, and classroom equipment, materials, and resources.

**456/556 Characteristics of the Mentally Retarded.** Semester course; 3 lecture hours. 3 credits. Nature and needs of the mentally retarded with emphases upon the degrees of retardation, causes, and concomitant problems. Psychological bases for a suitable curriculum are also explored.

**457/557 Characteristics of the Emotionally Disturbed.** Semester course; 3 lecture hours. 3 credits. Prerequisites: EDU 451/551 and EDU 470/570. A study of the causes and resultant problems involved in emotional disturbance and the implications for educational management.

**458/558 Characteristics of the Physically Handicapped.** Semester course; 3 lecture hours. 3 credits. Prerequisites: EDU 451/551 and EDU 470/570. Exploration of a variety of childhood health problems and their psychological, social, and educational impact on children, their families, communities, and schools. Emphasis on understanding multiple handicapped children.

**459/559 Teaching the Physically Handicapped.** Semester course; 3 lecture hours. 3 credits. Prerequisites: EDU 458/558 and EDU 470/570. Curriculum development, special materials, and classroom organization of multiple grade classes for physically handicapped children in day schools and clinical settings. Instructional procedures for the homebound child will be considered.

**460/560 Teaching the Disadvantaged.** Semester course; 3 lecture hours. 3 credits. Exploration of the nature and needs of disadvantaged children with emphasis on implications for teaching.

**461/561 Teaching the Mentally Retarded.** Semester course; 3 lecture hours. 3 credits. Prerequisites: EDU 451/551 and 456/556 or permission of instructor. Curriculum development and organization of activities for the mentally retarded at different maturational levels with specific attention to program content, equipment, materials, and resources.

**462/562 Teaching the Emotionally Disturbed.** Semester course; 3 lecture hours. 3 credits. Prerequisites: EDU 451 and 457. Curriculum development and organization of activities for the emotionally disturbed, including program content, equipment, materials, and resources.

**463/563 Teaching Slow Learners.** Semester course; 3 lecture hours. 3 credits. Curriculum development and organization of activities for slow learners at different maturational levels with specific attention to program content, materials, resources, and guidance.

**464/564 Teaching the Gifted.** Semester course; 3 lecture hours. 3 credits. Curriculum development and organization of activities for the gifted at different maturational levels with specific attention to program content, materials, resources, and guidance.

**465/565 Young Children with Special Needs.** Semester course; 1 or 3 hours. 1 or 3 credits. An overview of the nature and needs of young handicapped children, the rationale for early intervention and available resources. A television course for teachers, parents, and personnel in health professions with accompanying seminars.

**466/566 Remedial Reading.** Semester course; 3 lecture hours. 3 credits. Prerequisite: EDU 426/526. Designed for teachers and others who assist in improving reading efficiency, diagnosis of reading difficulties of all age groups, administration and interpretation of individual reading diagnostic tests, organization of reading instruction for individuals or small groups based upon careful diagnosis; specialized remedial methods presented for severely retarded or non-readers.

**467/567 Language Arts for the Mentally Retarded.** Semester course; 3 lecture hours. 3 credits. Prerequisites: EDU 451/551 and 456/556. A study of the communication problems of the mentally retarded at different maturational levels and techniques for developing appropriate curricular emphasis in the total program.

**468/568 Psychoeducational Diagnosis of Children.** Semester course; 3 lecture hours. 3 credits. A review of tests used in determining nature and extent of learning deficits and their translation into education methodology for children with specific learning problems. Techniques of remediating learning disorders will be examined and evaluated.

**469/569 Teaching Remedial Arithmetic.** Semester course; 3 lecture hours. 3 credits. Prerequisite: EDU 422/522. For classroom teachers and resource teachers working with children whose arithmetic achievement is significantly lower than grade level placement or expectancy level; designed to attack learning problems in arithmetic at the child's level and to aid teachers in the sequential development of skills and concepts.

**470/570 Medical Aspects of Crippling Conditions.** Semester course; 3 lecture hours. 3 credits. Survey of medical conditions and special health problems as they relate to educational planning and programming. Etiology, prognosis, and effects of disabling conditions are discussed by medical specialists. Teacher-physician relationships are explored. Planning for both the child and his environment to meet his special needs is included.

**471/571 Education of Self.** Semester course; 3 lecture hours. 3 credits. Designed to explore personal concerns of identity, relationship, and power in a group setting; preparatory training for small group leadership and/or teaching, utilizing humanistic education constructs, techniques, and procedures. Participants are assisted in identifying their concerns, discovering their patterns of emotional and behavioral responses, examining the consequences of these patterns, and generating and "trying on" alternative behaviors, thus examining awareness of strategies for learning about self and others.

**472 Group Facilitation Practicum.** Semester course; 3 lecture hours. 3 credits. Prerequisite: EDU 432/532 or

equivalent experience. Readings in theory, technique, and research in humanistic education and psychology; organizational growth, development, and personal awareness as they relate to group facilitation. Readings will be coupled with a placement in a group facilitation practicum within the university.

**475 Cross Cultural Communications.** Semester course; 3 lecture hours. 3 credits. An experientially-oriented seminar for persons preparing for or in careers demanding close working relations with members of differing cultural-ethnic backgrounds, primarily white/black. Supported by out-of-class readings and exercises, the seminar will focus on attitudes, opinions, and self-perceptions operative within the seminar and on relating these to race relations problems and change strategies within the large society.

**476/576 Methods for Resident Hall Assistants.** Semester course; 3 lecture hours. 3 credits. Prerequisite: service in VCU residence halls of permission of instructor. Course designed primarily to present resident assistants and others with student development concepts, peer assistance and helping skills, and group techniques. Residence halls will be used as primary learning laboratories.

**478 Creative Rhythmic Movement.** Semester course; 3 lecture hours. 3 credits. A study of the importance and place of movement and music in a school program, and the uses of these media in teaching. Emphasis will be placed upon music as an accompaniment for movement and movement as an accompaniment to music. Attention will be given to analysis, improvisation, and creativity.

**480/580 Human Interaction in Teaching.** Semester course; 3 lecture hours. 3 credits. Case-oriented study of affective behavior and its influence on the classroom climate and learning. The content will emerge as the cases are presented and discussed by the participants.

**482 Practicum in Teaching.** Semester course; 3 lecture hours. 3 credits. Designed to meet the specific needs of individual students who have had teaching experience. Includes a special project in a school setting.

**483 Extended Practice Teaching—Early Childhood.** Block VII Semester course; 15 credits. Prerequisite: permission of department. Student teaching in an appropriate setting with concurrent seminar experiences. The prospective teacher will assume full responsibility for a given group of children. Emphasis will be placed upon, but not limited to, reading and its application into all curricular areas, differentiation of instruction, and diagnostic and prescriptive procedures.

**484 Extended Practice Teaching—Elementary Education.** Block VIII Semester course; 15 credits. Prerequisite: permission of department. Student teaching in a school setting with a concurrent seminar experiences. The prospective teacher will assume full responsibility for a given group of children. This experience will involve an investigation of the various levels of abilities found in the classroom and techniques and strategies for their evaluation. Emphasis will be placed upon, but

not limited to, reading and its application into all instructional areas, differentiation of instruction, and diagnostic and prescriptive procedures.

**485 Supervised Teaching—Elementary Education.** Semester course; 6 credits. Prerequisite: permission of department. Classroom experience is offered so that the student may learn to harmonize theory and practice, develop a professional point of view, acquire teaching skills, and gain an understanding of children and how they learn. Students will participate in a wide range of school activities.

**486 Supervised Teaching—Secondary Education.** Semester course; five days per week for eight weeks. 6 credits. Classroom teaching experience is provided so that students may learn to harmonize theory and practice, develop a professional point of view, acquire teaching skills, and gain an understanding of adolescents and how they learn. Students will participate in a wide range of school activities.

**487 Supervised Teaching—Special Education.** Semester course; five days per week for eight weeks. 6 credits. Classroom experience is offered so that the student may learn to harmonize theory and practice, develop a professional point of view, acquire teaching skills, and gain an understanding of children and how they learn. Students will participate in a wide range of school activities.

**488 Supervised Practicum—Advanced.** Semester course; 1-3 credits. Intensive clinical experiences in teaching designed to meet individual student's needs. Includes weekly seminar.

**489 Motor Development in Small Children.** Semester course; 3 lecture hours. 3 credits. This course will deal with the development of small children, pre-school, kindergarten, and first grade children, through physical education. Emphasis will be on the construction of a program of motor development for each of these three groups. The programs will be based on the research findings in such areas as perceptual-motor development, motor learning, educational psychology, and others. Those students and teachers in the fields of physical education, special education, and elementary education should find this course useful in developing programs of motor development for their students.

**490 Seminar.** Semester course; 3 lecture hours. 3 credits. An elective course for senior education students and other students on approval of the instructor. Discussion of current issues in education.

**491/591 Teaching Social Studies in the Elementary School.** Semester course; 3 lecture hours. 3 credits. Emphasis on methods and techniques for developing knowledge, skills, attitudes and values, and social action in the elementary grades. Attention given to curriculum organization, current practices, and trends in elementary social studies.

**494/594 Topical Seminar in Elementary Education.** Semester course; 1-3 variable credits, repeatable up to 6 credits. A seminar intended for group study by

elementary school personnel interested in examining topics, issues, or problems related to the teaching, learning, and development of children.

**495/595 Reference and Bibliography.** Semester course; 3 lecture hours. 3 credits. A study and evaluation of basic reference books and other bibliography material most frequently used to answer reference questions in a library.

**496/596 Library Organization and Administration.** Semester course; 3 lecture hours. 3 credits. A study of fundamental methods, routines, and procedures in the acquisition, preparation, and circulation of books for a small library, with special emphasis on the school library.

**497/597 Cataloguing and Classification.** Semester course; 3 lecture hours. 3 credits. A basic course in cataloguing the more common types of library materials. Practice in using classification system, subject headings, simple filing rules, and the use and adaptation of printed cards and cataloguing aids.

## COURSES IN PHYSICAL EDUCATION (PHE)

These courses are for majors. Courses for non-majors are listed on page 197.

**190 Introduction to Physical Education.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Overview of the professional aspects of physical education in our society, philosophical and scientific principles of physical education, professional organizations and literature, and career possibilities and qualifications.

**237 Teaching Gymnastics to Girls.** Semester course; 3 lecture hours. 3 credits. Uneven parallel bars, balance beam, free exercise, tumbling, and vaulting. Open only to employed teachers.

**372 Theory and Techniques of Coaching Football and Baseball.** Semester course; 2 lecture hours. 2 credits. Prerequisites: PHE 140, 141. Theory and practice of coaching baseball and football, particularly at the high school level.

**373 Theory and Techniques of Coaching Basketball and Soccer.** Semester course; 2 lecture hours. 2 credits. Prerequisites: PHE 141, 142. Theory and practice of coaching basketball and soccer, particularly at the high school level.

**376 Coaching and Officiating Volleyball.** Semester course; 2 lecture hours. 2 credits. Theory, techniques, and practice of coaching and officiating volleyball, particularly at the secondary school level; introduction to advanced levels of play; opportunity to obtain N.A.G.W.S. official's rating. Designed primarily for women, but open to any student, educator, or community resident, male or female, interested in gaining knowledge and experience in coaching and officiating.

**377 Officiating Field Hockey.** Semester course; 1

lecture hour. 1 credit. Theory, techniques, and practice in officiating field hockey, particularly at the secondary school level. Opportunity to obtain U.S.F.H.A. umpire's rating.

**390 Teaching Physical Education for Elementary Teachers.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Methods and curriculum planning in physical education for the elementary school classroom teacher and physical education specialist. Included are analysis of movement, games, and activities suitable for the elementary school child.

**391 Teaching Physical Education in the Elementary Schools.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Designed to enhance knowledge of elementary physical education through an analysis of the aims, goals, objectives, programs, and teaching methods. Construction of year-round curriculum and daily lesson plans. Emphasis also placed upon the acquisition of administrative and organizational knowledge dealing with facilities, equipment, teaching aids, testing, measurement, and safety.

**392 Kinesiology.** Semester course; 3 lecture hours. 3 credits. Prerequisite: BIO 206 or permission of instructor. A study of the anatomical, physiological, and physical aspects of human motion with application to the analysis of physical activities.

**397 Methods in Health and Physical Education.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Methods, materials, techniques, and skills in teaching secondary physical education.

**398 Curriculum in Physical Education.** Semester course; 3 lecture hours. 3 credits. Curriculum planning for secondary school physical education programs.

**411 Problems of Coaching (Basketball).** Semester course; 3 lecture hours. 3 credits. An intensive study of problems involved in coaching major sports in the secondary school. Emphasis will be placed on practical aspects, of organization, administration, and techniques required for successful coaching. This course is designed to meet the needs of personnel already involved in coaching.

**412 Problems of Coaching (Football).** Semester course; 3 lecture hours. 3 credits. An intensive study of problems involved in coaching major sports in the secondary school. Emphasis will be placed on practical aspects of organization, administration, and techniques required for successful coaching. Designed to meet the needs of personnel already involved in coaching.

**430 Seminar in Gymnastics for Teachers.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: teaching experience in the field or permission of instructor. Designed to cover all facets of a gymnastic program from the typical physical education class to varsity coaching.

**439 The Organization, Administration, and Supervision of the Intramural Sports Program.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Experiences in the organization and administration of

an intramural sports program. Lecture will be devoted to the theory, philosophy, history, and plans for the conduct of an intramural sports program. Laboratory experience will be obtained by working in intramural programs.

**477 Psychology of Coaching.** Semester course; 3 lecture hours. 3 credits. Prerequisite: completion of two coaching theory courses or permission of instructor. Psychological basis of athletic coaching with emphasis upon the factors affecting the teaching and learning of athletic skills. Review and analysis of appropriate research findings in the area of motor learning. Study of the problems of coaching at the secondary and college level.

**492 Physiology of Exercise.** Semester course; 3 lecture and 1 laboratory hour. 3 credits. Prerequisite: BIO 206. Physiological changes in the human organism resulting from exercise, investigation of recent research in diet, drugs, fatigue, cardiovascular/respiratory fitness, conditioning programs for various age groups, and the effects of exercise upon various components of physical fitness and health. Application of specific problems to physical education programs. Laboratory experience in the use of research instruments in exercise physiology and completion of four group and two individual studies required.

**493 Tests and Measurement in Health and Physical Education.** Semester course; 3 lecture hours. 3 credits. Prerequisites: MAT 111 and 112 (or STA 213). Selecting, administering, scoring, and evaluating tests in the areas of general motor educability, specialized skills, and knowledge tests. Scientific test construction and basic statistical analysis. Application of competencies demonstrated by completion of project requiring the administration and evaluation of one or more tests, review of the literature, analysis of data, and presentation of conclusions and recommendations.

**495 Adaptive and Corrective Physical Education.** Semester course; 3 lecture hours. 3 credits. Prerequisite: PHE 492. A course designed to provide physical educators with methods of teaching and permanent

physical disabilities with emphasis on kinds and degrees of anatomical and physiological limitations.

## COURSES IN HEALTH EDUCATION (HEN)

**325 Treatment of Athletic Injuries.** Semester course; 2 lecture and 2 laboratory hours. 3 credits. Prerequisite: BIO 205. Theory and techniques for the prevention, recognition, referral, and follow-up care of injuries in physical education and athletics.

**380 First Aid and Accident Prevention.** Semester course; 2 lecture hours. 2 credits. Standard and advanced Red Cross first aid course designed for students in teacher preparation programs other than physical education.

**382 Driver Education.** Semester course; 3 lecture hours. 3 credits. Prerequisite: driving license. Classroom instruction combined with road training and teaching of driving to beginners. The essential facts, rules, regulations, skills, and attitudes for good driving.

**385 School Health.** Semester course; 3 lecture hours. 3 credits. The role of the classroom teacher in the school health program.

**386 Community Health.** Semester course on alternate year basis; 3 lecture hours. 3 credits. The function of health organizations as they relate to each other and to the community.

**480 Safety Education and First Aid.** Semester course; 3 lecture hours. 3 credits. Designed to show the hazards of, to develop wholesome attitudes toward, and to impart knowledge concerning the safety aspects of all areas of activity in the home, school, and community. Standard and advanced Red Cross first aid requirements are also incorporated into this course.

**487 Health Problems.** Semester course; 3 lecture hours. 3 credits. A study of health problems, with emphasis on preventive measures.



## PART XI—Program in General Studies

F. DANA PAYNE  
Director  
RONALD A. TIMMONS  
Associate Director

Recognizing that some students seeking admission to Virginia Commonwealth University will not have chosen a field of concentration by the time they apply or enroll, the university has provided a general two year exploratory program of studies. This program is flexible enough to suit the interests of any uncommitted student, yet it is basic to a number of fields of study. During two years of study the student is encouraged to investigate various fields until he finds a curriculum which suits his interests and needs. Transfer students from other universities are not admitted to this program.

Students enrolling in the General Studies Program are encouraged to select a major field of concentration by the end of two years of study. A student will not be allowed to register for more than 60 hours as an exploratory student. The major requirement for the General Studies Program is that the student must meet with his advisor once each term before advanced registration to plan his curriculum. The student is also required to schedule an appointment for advising when recommended by his advisor to do so.

### SUGGESTED COURSES FOR GENERAL STUDIES STUDENTS AMONG VARIOUS SCHOOLS

#### A. Most Transferable Courses

ENG 101-102 Composition and Rhetoric  
HIS 101-102 Introduction to European History  
HIS 103-104 Introduction to American History  
HIS 105-106 Introduction to Third World History  
PSY 101 General Psychology  
SOC 101 General Sociology  
SPE 121 Effective Speech  
BIO 101-102 General Biology, CHE 101-102 General Chemistry, PHY 207, 208 University Physics I, II, -with laboratories  
ECO 201-202 Principles of Economics  
MAT 100 or 111 (placement test required)  
Physical Education

#### B. Second Level of Most Transferable Courses

POS 201 American Government  
ARH 103 Art History, General  
AAS 100 Introduction to Afro-American Studies  
PHI 101 and 102 Introduction to Philosophy  
PHI 201 and 202 History of Philosophy

#### If School is Probably Arts:

AEN 121-122 Art Education  
AFO 113-114 Basic Drawing, AFO 115-116 Fundamentals of Design  
ARH 103-104 Art History, General  
CRA 201-202 Metalsmithing, CRA 211-212 Jewelry, CRA 241-242 Beginning Ceramics, CRA 261-262 Beginning Textiles  
FDE 209 Textile Laboratory, FDE 221E Beginning Dressmaking  
IDE 103-104 Introductory Studio Course, IDE 217, 218 Great Houses and Monuments: Europe and America  
PAP 155E-156E Drawing and Painting, Basic



## 210 Program in General Studies

SCU 209-210 Introduction to Sculpture  
THE 111 Introduction to Theatre, THE 203-204  
History of the Theatre  
Private Music Lessons  
APM 193 Class Lessons in Voice  
APM 151 Chamber Music  
MHT 105 Fundamentals of Music Theory

### **If School is Probably Arts and Sciences:**

ANT 103 Cultural Anthropology  
ENG 101-102 Composition and Rhetoric  
Foreign Language (placement test required if  
continuing in high school language)  
HIS 101-102 Introduction to European History  
HIS 103-104 Introduction to American History  
HIS 105-106 Introduction to Third World History  
Laboratory Science—two course sequence with  
laboratories—BIO 101-102 General Biology, CHE  
103-104 Introduction to Modern Chemistry, PHS  
107-108 Physical Science  
MAT 100 Unitized Mathematics, or MAT 111 Basic  
Mathematics for Behavioral, Social, and  
Management Sciences (placement test required)  
PHI 101 Introduction to Philosophy  
POS 101 Elements of Political Science, and POS 201  
American Government  
PSY 101 General Psychology  
RST 101 Introduction to Religious Studies  
SOC 101 General Sociology

### **If School is Probably Business:**

BUS 111-112 Basic Mathematics for Business Students  
BUS 121 The Business Environment  
ENG 101-102 Composition and Rhetoric  
Elective in History or Political Science  
A natural science elective—SOC 101

### **If School is Probably Community Services:**

Life or Physical Sciences—6 hours.  
CSE 115 and 116 The American City, CSE 251 Survey  
of the Administration of Justice, CSE 261 Recreation

in Modern Society, CSE 253 Introduction to  
Corrections, or CSE 291 Introduction to  
Rehabilitation

ENG 101-102 Composition and Rhetoric  
Humanities elective  
MAT 111 Basic Mathematics for Behavioral, Social,  
and Management Sciences  
No Physical Education required  
PSY 101 General Psychology  
SOC 101 General Sociology

### **If School is Probably Education:**

ENG 101-102 Composition and Rhetoric  
HIS 103 Introduction to American History  
MAT 115 Modern Elementary Mathematics  
(Elementary Education only)  
Electives in area you may wish to teach OR EDU 300  
Foundations of Education, EDU 301 Human  
Development and Learning, or EDU 302 Child  
Growth and Development, ECO 203 Introduction to  
Economics  
Physical Education  
Also, students may take beginning courses:  
HIS 101-102 Introduction to European History  
HIS 105-106 Introduction to Third World History  
POS 101 Elements of Political Science  
PSY 201 General Psychology  
SOC 101 General Sociology, SOC 102 Social Problems  
in the United States  
CSE 115-116 The American City

### **If School is Probably Social Work:**

ANT 103 Cultural Anthropology, 3 hours, ENG 101-  
102 Composition and Rhetoric, 6 hours.  
MAT 111 Basic Math for Behavioral Science, 3 hours  
PSY 101 General Psychology, 3 hours  
SOC 101 Introduction to Sociology, 3 hours  
Social/Behavioral Science  
Elective 6 hours  
Elective 6 hours

## PART XII—School of Social Work

ELAINE Z. ROTHENBERG

Dean

E. CLIFFORD BRENNEN

Associate Dean

ROBERT L. SCHNEIDER

Assistant Dean

DAVID P. BEVERLY

Director, Baccalaureate Program

Martin D. Adler / Janet C. Armstrong

Alice L. Barber / Thomas O. Carlton

Edward M. Carpenter / H. Otto Dahlke

David C. Forbes / Sheila Goldstein

Evanne T. Goode / Gloria F. Grant

Robert G. Green / Grace E. Harris

Virginia B. Haskett / Charles Itzkovitz

Wayne L. Johnston / Jean Boyd Jones

Sarah V. Jones / George T. Kalif

Ramsey Kleff / Michael S. Kolevzon

Lionel C. Lane / William F. McIntyre

Edward A. McSweeney / Sandra T. Mitchell

Margaretta R. Neumann / J. Wayne Newton

Jacqueline Parker / Vincient Perry

Helen Pinkus / Frances B. Raphael

Dojelo C. Russell / David N. Saunders

Charlotte S. Schrieberg / Martin S. Schwartz

C. Benard Scotch / Florence Z. Segal

William Stephenson / Michael L. Sugg

Emanuel Tropp / Ruby C. Walker

Lois McG. Washer / Toy S. Watson

Albert C. Watts / Mabel G. Wells

Nancy B. Werner / Wendell W. Williams

Claire Wompierski

The School of Social Work sees social work activity as ultimately addressed to the improvement of social functioning and the enhancement of individual identity. This is realized through a constellation of charac-

teristic methods, knowledge, and institutional arrangements for the planning, administering, and delivery of social services while participating in positive social and institutional change.

Social work education at VCU is highly individualized and is characterized by a close relationship between faculty and student. The faculty helps students learn the form and method of social work practice as they are encouraged to discover their own unique style of helping. The educational programs are designed to prepare students for practice in many different kinds of social agencies. The combination of classroom courses and concurrent field work experiences facilitates integration of knowledge, attitudes, and skills necessary for professional practice. The integrated class and field curriculum offers opportunities for students to acquire a substantial base in (1) social work practice; (2) the patterns of individual, group, and community behavior as they interact with each other and the social milieu; (3) the development, organization, and operation of social welfare programs and policies; and (4) the methods of scientific inquiry in social work.

### MASTER OF SOCIAL WORK PROGRAMS

The school offers a two year graduate professional curriculum for social work

leading to the Master of Social Work degree. Additional programs are available to selected groups of students. These programs include a work-study program, a part-time program, an advanced standing program for selected graduates of accredited undergraduate programs in social work, a cooperative program with the Presbyterian School of Christian Education, as well as institutes, continuing education offerings, and workshops. A description of the master's degree programs may be found in a separate bulletin. A copy of the graduate Social Work Bulletin may be obtained by writing the Director of Admissions, Graduate School of Social Work, Virginia Commonwealth University, 326 North Harrison Street, Richmond, Virginia 23284.

**BACCALAUREATE SOCIAL WORK PROGRAM**

The School of Social Work offers a Bachelor of Social Work degree. Students who complete the requirements for the B.S.W. degree are prepared for beginning professional practice in social work.

The pre-professional courses in this program are usually taken in the first two years of college study. This constitutes a sound liberal arts base for professional social work practice. The prescribed curriculum for students who enter the program at the freshman or sophomore level is as follows:

	Credits	
	1st Sem.	2nd Sem.
<i>First Year</i>		
ENG 101 Composition and Rhetoric .....	3	—
ENG 102 Composition and Rhetoric .....	—	3
PSY 101 General Psychology .....	3	—
SOC 101 Introduction to Sociology .....	3	—
Social/behavioral science elective ..	3	3
MAT 111 Basic Math for Behavioral Sciences .....	—	3
ANT 111 Cultural Anthropology ..	—	3
Electives .....	3	3
SEMESTER HOURS	—	30
<i>Second Year</i>		
SLW 201 Introduction to Social Work .....	3	—
PHI 221 Informal Logic .....	3	—
BIO 101 and Lab, General Biology ..	4	—
BIO 102 and Lab, General Biology ..	—	4

SLW 230 Communication in the Helping Process and Lab .....	—	3
STA 213 Introduction to Statistics ..	—	3
PSY 304 Developmental Psychology .....	—	3
Electives .....	6	3
SEMESTER HOURS	—	32

**JUNIOR YEAR**

Admission to the professional courses offered in the junior year is contingent upon the student's having obtained a minimum grade of "C" in SLW 201 Introduction to Social Work, and in SLW 230 Communication in the Helping Process and the laboratory which accompanies it; and the approval of an admissions committee. A cumulative "C" average of 2.0 on a 4.0 point scale, in all hours previously attempted is normally expected. The prescribed curriculum for the junior year is as follows:

	Credits	
	1st Sem.	2nd Sem.
<i>Third Year</i>		
SLW 311 Social Discrimination ...	3	—
SLW 313 Person in Society .....	3	—
SLW 321 Development of Social Welfare .....	3	—
SLW 322 Social Welfare: Services and Legislation .....	—	3
Humanities Electives .....	3	3
SLW 332 and Lab, Social Work with Individuals and Families ..	—	3
SLW 372 Research and Social Work .....	—	3
Electives .....	3	3
SEMESTER HOURS	—	30

**SENIOR YEAR**

Admission to field work (SLW 471-473 Supervised Social Work Practice) is contingent upon the student's ability to demonstrate to a committee that he has a sufficient grasp of the knowledge and skills taught in this curriculum to be able to meet practice requirements. The prescribed senior curriculum is as follows:

	Credits	
	1st Sem.	2nd Sem.
<i>First Year</i>		
SLW 441 and Lab, Social Work with Groups .....	3	—
SLW 471 Supervised Social Work Practice .....	4	—
SLW 472 Field Seminar .....	2	—

SLW 473 Supervised Social Work Practice .....	—	4
SLW 474 Field Seminar .....	—	2
SLW 413 Social and Behavioral Theory for Social Work Practice	3	—
SLW 452 Social Work with Organizations and Communities	—	3
Electives .....	3	6
	—	—
SEMESTER HOURS		30

Transfer of credits from other colleges or universities and/or from other programs at VCU is determined on an individual basis.

A minimum of 122 credits is required for the Bachelor of Social Work degree.

## UNDERGRADUATE COURSES IN SOCIAL WORK (SLW)

**Note:** Graduate courses are listed in separate bulletin.

**201 Introduction to Social Work.** Semester course; 3 lecture hours. 3 credits. Systematic overview of the social work profession. Begins the process of professional socialization, both through class content and required service experience. Knowledge of the nature of social work; the fields of social work practice; target populations; overview of social work methods.

**230 Communication in the Helping Process.** Semester course; 2 lecture hours. 2 credits. Study of the values, knowledge, and skills of effective human communication and interpersonal relations as necessary for planned change with individuals, groups, families, and communities. Includes observation, collection, and description of data, and verbal and non-verbal communication, and their relevance to social work practice.

**L230 Communication in the Helping Process Laboratory.** Semester course; 2 laboratory hours. 1 credit. May be taken only concurrently with SLW 230. Laboratory provides systematic training in the skills of effective interpersonal communication.

**311 Social Discrimination.** Semester course; 3 lecture hours. 3 credits. Examines selected concepts from the social and behavioral sciences as to the etiology and effects of institutional discrimination and individual prejudice as related to social work practice. The impact of discrimination upon individuals and groups is studied with special attention given to blacks, women, and the aged in this society. Concepts studied are applicable to other disadvantaged groups.

**313 Person in Society.** Semester course; 3 lecture hours. 3 credits. Required of all undergraduate social work majors. No prerequisites. A course in human behavior and social environment. Review of normal development. Emphasis on behavior categorized by society as deviant. Includes: mental illness, substance abuse, sexual deviations, criminal behavior, suicide, mental retardation, physical illness, and child abuse.

**321 Development of Social Welfare.** Semester course;

3 lecture hours. 3 credits. Traces the development of the institution of social welfare from the English Poor Law tradition to the beginnings of the modern welfare state. Analyzes public and private responses to the economic and social needs of the population in the context of values, social structure, economic change, and political response.

**322 Social Welfare: Legislation and Services.** Semester course; 3 lecture hours. 3 credits. Legislation and budgeting as major processes in the development of social welfare policy; analysis and evaluation of federal-state and federal-local service and income strategies.

**332 Social Work with Individuals and Families.** Semester course; 2 lecture hours. 2 credits. Prerequisites: SLW 201 and 230. Corequisite: SLW L332. Designed to prepare professional social workers for a beginning level of practice with individuals and families. Students will be prepared to deliver social work services to families and individuals of various ethnic and socio-economic backgrounds, who manifest problem solving difficulties. Using ego psychology as a theoretical and methodological framework, the course will examine the process of study, diagnosis, treatment and evaluation. Emphasis will be placed on relationship as dynamic problem solving.

**L332 Social Work with Individuals and Families Laboratory.** Semester course; 2 laboratory hours. 1 credit. Prerequisites: SLW 201 and 230. Corequisite: SLW 332. Assists the student in developing and applying social work skills necessary to render human services to individuals and families.

**372 Research in Social Work.** Semester course; 3 lecture hours. 3 credits. Review of current research about social problems and professional practice. Analysis of the assumptions underlying the research goals, methodology, and conclusions. Emphasis on the importance of the practitioner in identifying questions for research from his practice.

**390 Interviewing.** Semester course; 3 lecture hours. 3 credits. Principles and techniques of interviewing; functions of the interview in various organizational settings; verbal and non-verbal communication; validity and reliability of information obtained; communication problems in the interview.

**413 Social and Behavioral Theory for Social Work Practice.** Semester course; 3 lecture hours. 3 credits. Integrates the understanding of human behavior along biological, sociocultural, and psychological dimensions throughout the life cycle, and relates those concepts to selected theoretical formulations of social work practice. Particular attention will be given to Ego Psychology, Psychosocial Theory, Functional Theory, Learning Theory, Cognitive Theory, Interactional Theory, and Role Theory.

**441 Social Work with Groups.** Semester course; 2 lecture hours. 2 credits. A course in the theory and practice of social work with groups with particular emphasis on application in social welfare settings.

Special attention given to theories underlying the use of groups as a method of intervention in social work.

**L441 Social Work with Groups Laboratory.** Semester course; 2 laboratory hours. 1 credit. Provides students with opportunities to demonstrate their ability to engage in small group behavior and assess their behavior and the behavior of others in relation to intent, structure, and tasks. Students will be assigned group experiences in the laboratory or in the community.

**452 Social Work with Organizations and Communities.** Semester course; 3 lecture hours. 3 credits. Introduces students to the community work method, as conceptualized and practiced in the field of social work. Assessment of community dynamics, social goals, and community or organizational resources as elements in developing strategies of intervention at the interorganizational or community level. Emphasis on population identified as powerless in contemporary society.

**471-473 Supervised Social Work Practice.** Continuous course; 13 or 26 laboratory hours. 4 or 8 credits. Prerequisite: permission of instructor. Directed practice in a community agency under the supervision of an agency field instructor. The course is intended to develop knowledge, values, and social work practice skills appropriate to entry-level practice in human service agencies.

**472, 474 Field Seminars.** Semester course; 2 lecture hours. 2, 2 credits. Prerequisite: must be taken concurrently with SLW 471-473 and requires permission of instructor. The seminar provides an opportunity to generalize principles beyond the specifics of the particular agency and community in which students who are taking SLW 471-473 are currently doing their field work. It also supplements experience in multi-method intervention. There is exploration of career opportunities in relation to student goals after graduation.

**475, 476 Field Work.** Semester courses; 1 or 2 lecture and 10 or 20 laboratory hours. 3, 6; 3, 6 credits. Prerequisite: permission of instructor. Directed practice in a community agency under the supervision of an agency field instructor. The course is intended to develop knowledge, values, and beginning practice skills appropriate to entry-level practice in human services agencies. The seminar provides an opportunity to generalize principles beyond the specifics of the particular agency and community.

**480 Organization Structure and Management.** Semester course; 3 lecture hours. 3 credits. Examines the social agency as a special type of formal organization rationally structured and administered to achieve goals related to human needs. Emphasis is placed upon the worker in the agency and the processes and structures which may facilitate or constrain worker efforts to perform essential tasks.

**481 Issues in Social Welfare.** Semester course; 3 lecture hours. 3 credits. A senior seminar designed to identify issues of concern to students as beginning professionals and to discuss etiology of and options to

existing legislation or practice. Students will demonstrate evidence of their ability to analyze issues of their concern with the class.

**483 Social Work in Health Programs.** Semester course; 3 lecture hours. 3 credits. A social work elective which is designed to provide an overview of the health delivery systems in the U.S. Its general purpose is to provide an appreciation of the complexities involved in health policy determination.

**484 Income Maintenance Programs.** Semester course; 3 lecture hours. 3 credits. Examines the problem of poverty as a major social problem. Analyzes the legislation which deals with the provision of income maintenance services and the service delivery system which has resulted. Identifies the linkages between poverty and other problem areas, such as health and family integrity. Special emphasis on the role of the social worker in the income maintenance programs.

**486 Child Welfare Services.** Semester course; 3 lecture hours. 3 credits. Examines the varieties of services to children, both in their homes and in various institutions, with special emphasis on the child as a member of a family. The role of the social worker in these programs is examined with some emphasis on adequate services, innovative services, and improving services.

**487 Social Work in Criminal Justice Programs.** Semester course; 3 lecture hours. 3 credits. Examines the problem of crime as a major concern of social welfare. Analyzes legislation that deals with the criminal justice system and the network of agencies and programs involved. Special emphasis on the role of the social worker in probation and parole and corrections programs.

**489 Family Dynamics.** Semester course; 3 lecture hours. 3 credits. Study of the functions and structure of families as they persist and change in contemporary society. Special emphasis on the dynamics of interaction and communication patterns of dysfunctional families.

**490 Social Insurance.** Semester course; 3 lecture hours. 3 credits. Societal and individual financial problems encountered as the result of disability, unemployment, aging, and death. Insurance solutions through governmental and private techniques.

**491 Aging in Our Society.** Semester course; 3 lecture hours. 3 credits. Personal, social, and cultural aspects of aging in contemporary society. Implications for social welfare of meeting the needs of the aged. Examination of programs which work with aged persons.

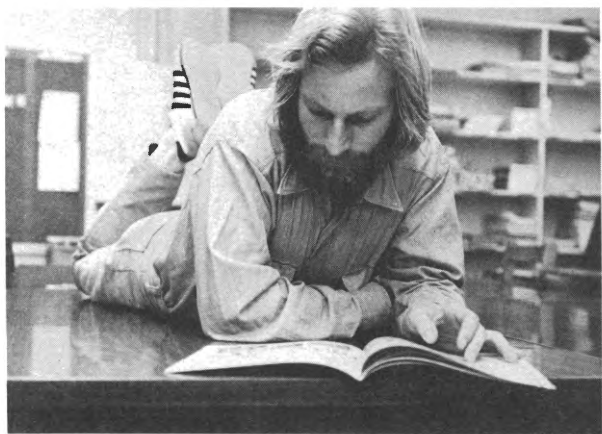
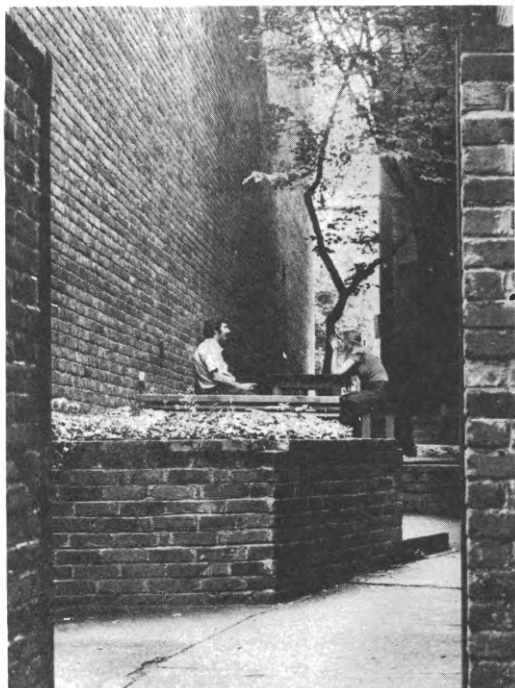
**492 Social Group Work II.** Semester course; 3 lecture hours. 3 credits. An advanced course in theory and use of social group work as a method of intervention in social work. The course is designed to present and examine the social and psychological precedents that underlie selected dynamic group phenomena.

**493, 494 Independent Study.** Semester courses; 1, 2, 3 lecture hours. 1, 2, 3 credits. Senior standing required. Prerequisite: permission of instructor. Under supervision of a faculty advisor, whose consent is required to register, study a topic of concern to the student. Each student must present his findings in writing and pass an open oral examination before a faculty committee of three members.

**495 Human Sexual Behavior.** Semester course; 3 lecture hours. 3 credits. Course open to senior social work majors and graduate social work students.

Development of gender identity, the social and cultural programming of maleness and femaleness, varieties of sexual behaviors, changing views of sexual identity, sexuality as embedded in life style, the sexual "revolution," and implications for social work.

**496 Social Policy and Aging.** Semester course; 3 lecture hours. 3 credits. Course open to senior social work majors and graduate social work students. An examination of the legislative and judicial processes related to the aged and their problems. Evaluates the need for local, state, and national policies on aging.





## PART XIII—Board, Administration, and Faculty

### BOARD OF VISITORS Appointed by the Governor of the Commonwealth of Virginia

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Roanoke

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Affairs and Academic Planning-Medical College of

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Associate Provost for Academic and Professional

Affairs-Medical College of Virginia Campus

<sup>1</sup>Deceased, March 1977.

## ACADEMIC DEANS—ACADEMIC CAMPUS

Murry N. DePillars, B.A., M.A., Ph.D.  
Dean, School of the Arts

Thomas H. DeSmidt, B.F.A., M.F.A.  
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Associate Dean, School of the Arts

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Associate Dean, School of Business

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Assistant Dean, School of Business

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Assistant Dean, School of Education

Elaine Z. Rothenberg, A.B., M.S.S.  
Dean, School of Social Work

E. Clifford Brennen, A.B., M.S.W., D.S.W.  
Associate Dean, School of Social Work

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Assistant Dean, School of Social Work

John A. Mapp, B.A., M.A.  
Dean of the Evening College and Summer Session

Rozanne G. Epps, B.A., M.A.  
Assistant Dean, Evening College and Summer Sessions

## UNIVERSITY SERVICES

John J. Smolen, Jr., B.S., M.B.A.  
University Registrar

Charles P. Austin, B.S., M.B.A.  
Associate Director, University Computing Activities

Edwin E. Blanks, B.S., M.A.  
Head, Administrative Services, University Computer Center

David L. Brydon, B.A.  
Head, Computer Systems, University Computer Center

W. Carter Childress, B.S.  
*Treasurer*

Martha B. Conway, LL.B.  
Administrator of Research Grants and Contracts

James L. Dunn, B.S., M.S.  
Assistant Director of Development and Director of Alumni Activities

William O. Edwards, B.A., M.A.  
Director of University Relations

Carol S. Farino, B.S.  
Acting Head, Academic Services, University Computer Center

Vacant  
Director of the University Computing Activities

Timothy L. Langston, B.S., M.S., Ed.D.  
Dean of Student Services

Vacant  
Comptroller

Phyllis L. Mable, B.S., M.S.  
Associate Dean of Student Services

David R. Mathis, B.S., M.A.  
Manager of University Publications

Alfred T. Matthews, B.A., M.A., Ph.D.  
Dean of Student Life

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Director of University Libraries

John H. McGrath, B.A., M.A., Ph.D.  
Director of Graduate Studies

Donald C. Moore  
Director of Auxiliary Enterprises and University Services

Stephen Moore, B.S.  
Director of University Personnel

O. Dabney Riley, Jr., B.S.  
University Auditor

Roger L. Smith, A.B., M.S., Ph.D.  
Director of Institutional Research and Planning

William T. VanPelt, B.S.  
Manager of Information Services

Ralph M. Ware, Jr., B.S.  
Director of Development

Vacant  
Director of Campus Centers

## ACADEMIC CAMPUS SERVICES

James M. Alessio, B.S.  
Director of Academic Records

Pau. G. Barberini  
Director of Financial Aid

John D. Call, B.S., M.S., M.D.  
Academic Campus Physician

Manfred Call III, B.S., M.S., M.D.  
Academic Campus Physician

O. Allen Davis, B.S.  
Chief Accountant

John Driscoll  
Systems Analyst

William H. Duvall, B.A., M.Ed., Ed.D.  
Associate Dean, Student Life

Kenneth L. Ender, B.S., M.Ed.,  
Coordinator, Student Activities

Steven D. Fuhrmann, B.S., M.Ed., Ed.D.  
Assistant Dean, Student Life

Alfred B. Houghton, B.A., J.D.  
Director of Registration and Scheduling

Jerrie Johnson, B.S., M.S.  
Director, Admissions

Stephen M. Lenton, B.A., M.A.  
Assistant Dean, Student Life

James A. Martin, B.S.  
Supervisor of Student Accounts

Richard E. McConaughy, B.A., M.A., Ph.D.  
Director, Office of Career Planning and Placement

James E. McDowell, B.S.C.  
Bookstore Manager

Beverly Mikulay, B.A.  
Assistant Coordinator, Student Activities

Rollie Oatley, Jr.  
Director of Career Planning and Placement

Osborne B. Parker, B.S., M.S., Ed.D.  
Director, Counseling Center

F. Dana Payne, B.A.  
Director of General Studies

Ellen D. Pearson, B.S.  
Director, Student Financial Aid

Elizabeth A. Rebich, B.S., R.N.  
Head Nurse, Academic Campus

Henry G. Rhone, B.A., M.Ed.  
Assistant Dean, Student Life

Adelaide Simpson  
Assistant Coordinator of Student Activities

Vacant  
Associate Dean, Student Life

Linda Z. Tillman  
Personnel Officer, Academic Campus

Earl Wheatfall, B.A., M.A.  
Director, Special Services

## INSTRUCTIONAL STAFF (1976/1977)

The date after each name indicates year of appointment.

- Abdelsamad, Moustafa H. (1968) *Associate Professor of Finance* B.Com. Cairo University; M.B.A., D.B.A., George Washington University.
- Adler, Martin D. (1975) *Professor of Social Work* A.B., M.S.W., Ph.D., University of Pittsburgh.
- Allan, Richard E. (1972) *Associate Professor of Mathematical Sciences* B.S., Samford University; M.A., University of Alabama; Ph.D., George Peabody College.
- Allen, Edward P. (1950) *Associate Professor of Physical Education* B.S., Rhode Island State College; M.Ed., Boston University.
- Allocco, Vincent A. (1975) *Assistant Professor of Rehabilitation Counseling* B.A., St. Mary of the Lake College; Ph.D., U.S. International University; M.Th., B.D., University of State of N.Y./Theology.
- Ameen, David A. (1974) *Associate Professor of Information Systems* B.S., United States Naval Academy; M.A., Ph.D., University of Maryland.
- Ames, David L. (1971) *Associate Professor of Urban Studies and Associate Dean, School of Community Services* B.A., M.A., George Washington University; Ph.D., Clark University.
- Apgar, Nicholas A. (1962) *Associate Professor of Communication Arts and Design* B.F.A., M.F.A., Syracuse University.
- Armour, Robert A. (1963) *Associate Professor of English* B.A., Randolph-Macon College; M.A., Vanderbilt University; Ph.D., University of Georgia.
- Armstrong, Janet C. (1973) *Instructor in Social Work* B.S., M.S.W., Virginia Commonwealth University.
- Arnold, Edmund C. (1975) *Professor of Mass Communications* A.B., Michigan State University; L.H.D., Hartwick College.
- Arnold, Virginia (1973) *Assistant Professor of Education* B.S., Kent State University; M.A., Ph.D., Ohio State University.
- Auerbach, Stephen M. (1973) *Assistant Professor of Psychology* B.A., Queens College (CUNY); M.S., Ph.D., Florida State University.
- Auh, Taik Sup (1976) *Assistant Professor of Mass Communications* B.A., Seoul National University (Korea); M.A., Indiana University.
- Austin, Robert J. (1972) *Assistant Professor of Political Science* B.A., M.A., Ph.D., University of Virginia.
- Ayres, Ray M. (1969) *Associate Professor of Business and Director, The Management Center* B.S., M.S., Virginia Commonwealth University; Ph.D., University of Maryland.
- Bahler, Peter (1974)<sup>3</sup> *Instructor in Music* B.A., University of Rochester; M.A., Eastman School of Music.
- Bailey, James W. (1964) *Professor of Education* A.B., Cornell College; B.D., Garrett Theological Seminary; M.Ed., University of Chicago.
- Bailey, Kent G. (1968) *Associate Professor of Psychology* B.A., Emory and Henry College; M.S., Virginia Commonwealth University; Ph.D., University of West Virginia.
- Baker, Stanley E. (1971)<sup>2</sup> *Assistant Professor of Education* A.B., Virginia Union University; M.A., M.Ed., Ed.D., Columbia University.
- Barber, Alice L. (1964) *Associate Professor of Social Work* B.S., Southwestern Louisiana College; M.S.W., Tulane University.
- Barker, Robert C. (1966)<sup>3</sup> *Instructor in Music* B.A., M.M., Yale School of Music.
- Barnes, Michael T. (1971) *Instructor in Education* B.S., M.S., Virginia Commonwealth University.
- Bass, Robert G. (1962) *Professor of Chemistry* B.S., Virginia Polytechnic Institute and State University; Ph.D., University of Virginia.
- Batty, L. Wayne (1949) *Professor of Music* B.M.Ed., Illinois Wesleyan University; B.M., Kansas City Conservatory; M.M., Chicago Musical College.
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- Earl, Jack (1972) *Associate Professor of Crafts* B.A., Bluffton College; M.A., Ohio State University.
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- Edwards, Clifford W. (1975) *Associate Professor of Philosophy and Religious Studies* B.A., Drew University; B.D., Garrett Biblical Institute; Ph.D., Northwestern University.
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- Engel, Arthur J. (1976) *Instructor in History* A.B., Clark University; M.A., Ph.D., Princeton University.
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- Erickson, Marilyn T. (1976) *Professor of Psychology* A.B., Pembroke College; M.A., Brown University; Ph.D., University of Washington.
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- Ferguson, Clinton S. (1959) *Associate Professor of Economics* B.B.A., University of Chattanooga; M.S., University of Tennessee.
- Ferguson, Jerry Thomas (1965) *Assistant Professor of Business Administration* B.S., M.S., Virginia Polytechnic Institute and State University.
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- Loomer, E. Cofer (1961) *Assistant Professor of Business and Coordinator, Management Center* B.S., M.S., Virginia Commonwealth University.
- Looney, James R. (1964) *Assistant Professor of Mass Communications* B.S., East Tennessee State University; M.S., Virginia Commonwealth University.
- Lowery, Diane M. (1970) *Instructor and Assistant Director of Admissions* B.S., M.Ed., Virginia Commonwealth University.
- Lowery, George (1976)<sup>8</sup> *Instructor in Music* B.M.E., Virginia Commonwealth University.
- Lubman, Melvin V. (1968) *Assistant Professor of Psychology* B.A., University of Richmond; M.A., New York University.
- Luck, Richard S. (1976) *Assistant Professor of Rehabilitation Counseling* B.A., University of Richmond; M.S., Virginia Commonwealth University; Ed.D., University of Virginia.
- Lumsden, Barry (1975) *Associate Professor of Education* A.A., Louisiana College; M.S., Ed.D., North Carolina State University.
- Lunsford, Ernest J. (1974) *Assistant Professor of Spanish* B.A., Duke University; M.A., Middlebury College (Madrid, Spain); Ph.D., University of Florida.
- Lyles, Albert Marion (1970) *Professor of English and Associate Dean, School of Arts and Sciences* A.B., Union College; A.M., University of Pennsylvania; Ph.D., Rutgers-The State University.
- Madden, Bonita J. (1972) *Instructor in Education* B.A., M.Ed., Boston University.
- Madden, Peter (1973) *Assistant Professor of Education* A.B., Southeastern Missouri State College; M.A., Newark State College; Ed.D., Rutgers-The State University.
- Madigan, Christopher J. (1975) *Instructor in English* B.A., Vanderbilt University; M.A., Catholic University of America; M.A., Colorado State University.
- Magill, G. Dave (1962) *Assistant Professor of Physical Education* B.S., Virginia Commonwealth University; M.Ed., University of Virginia.
- Maher, Robert W. (1975) *Instructor in Biology* B.A., Marquette University; M.A., Southern Illinois University.
- Mahoney, John M. (1971) *Associate Professor of Psychology* B.S., Michigan State University; Ph.D., State University of New York at Buffalo.
- Mahony, Joseph (1973) *Assistant Professor of Education* B.A., M.Ed., Ed.D., Boston University.
- Mangum, Anthony B. (1971) *Assistant Professor in English* A.B., University of North Carolina; M.A., Ph.D., University of South Carolina.
- Mapp, John A. (1964) *Professor of Education and Dean, Evening College and Summer Sessions* B.A., College of William and Mary; M.A., New York University.
- Marchand, James R. (1975) *Assistant Professor of Economics* B.A., University of California at Riverside; Ph.D., Virginia Polytechnic Institute and State University.
- Margolis, William (1975) *Assistant Professor of Information Systems* B.S., University of Michigan; Ph.D., Oregon State University.
- Maricle, Kenneth E. (1971) *Associate Professor of Marketing and Acting Chairman, Department of Marketing* B.S.B.A., University of Kansas; M.B.A., University of Denver; D.B.A., Arizona State University.
- Markham, Robert C. (1962) *Assistant Professor of English* B.A., M.A., LL.B., J.D., University of Richmond.
- Marolla, Joseph A. (1975) *Assistant Professor of Sociology and Anthropology* B.A., M.A., University of Rhode Island; Ph.D., University of Denver.
- Marquardt, Martin W. (1975) *Assistant Professor of Management* B.A., Oklahoma State University; M.B.A., Syracuse University; Ph.D., University of Alabama.
- Marrion, Mildred Wuslich (1963) *Assistant Professor of Music* B.M., M.M., College-Conservatory of Music, University of Cincinnati.
- Marta, Ronald S. (1971) *Assistant Professor of French* B.A., University of St. Thomas (Texas); M.A., Université Laval (Canada); Ph.D., University of Chicago.
- Martin, Bernard M. (1960) *Associate Professor of Painting and Printmaking* B.F.A., Virginia Commonwealth University; M.A., Hunter College.
- Martin, Ila (1974) *Assistant Professor of Education* B.A., Bloomfield College; Ed.M., Ed.D., Rutgers University.
- Martin, Robert J. (1971) *Assistant Professor of Communication Arts and Design* B.F.A., Minneapolis School of Art; M.F.A., Indiana University.
- Martinez, Joseph (1976) *Assistant Professor of Theatre* Diploma, Royal Academy of Dramatic Art.
- Mason, Novem M. (1968) *Assistant Professor of Interior Design* B.Arch., North Carolina State University; M.F.A., East Carolina University.
- Matthews, Alfred T. (1970) *Assistant Professor of Education and Dean, Student Life* B.A., M.A., Colorado State College; Ph.D., Indiana University.
- Mattia, Alphonse (1973)<sup>2</sup> *Instructor in Crafts* B.F.A., Philadelphia College of Art; M.F.A., Rhode Island School of Design.
- May, Margaret L. (1955) *Associate Professor of Biology* B.S., American University; M.S., George Washington University.
- McCanless, Rosamond (1938) *Associate Professor and Archivist and Special Collections Librarian* A.B., Converse College; A.B., in Library Science, M.A., University of North Carolina; Seminar in Greece.
- McCartha, Alice (1969) *Professor of Education* B.Ed., Illinois State University; M.A., University of Illinois; Ed.D., University of Florida.
- McCowen, Sara M. (1975) *Assistant Professor of Biology* B.A., Duke University; M.A.T., University of North Carolina (Chapel Hill); Ph.D., Medical College of Virginia of Virginia Commonwealth University.
- McCreedy, Kenneth R. (1972) *Assistant Professor of Administration of Justice and Public Safety*



- A.A., Orange Coast College; B.S., California State College at Long Beach; M.P.A., University of Southern California.
- McCullough, James P., Jr. (1972) *Associate Professor of Psychology* B.A., Louisiana State University; B.D., Southern Methodist University; M.S., Ph.D., University of Georgia.
- McDaniels, Terry W. (1974) *Assistant Professor of Physics* B.A., Wittenberg University; M.S., Ph.D., Michigan State University.
- McGovern, Thomas V. (1976) *Assistant Professor of Psychology* B.A., Fordham University; M.A., Ph.D., Southern Illinois University.
- McGrath, John H., III (1971) *Professor of Sociology and Anthropology and Director of Graduate Studies* B.A., Albright College; M.A., Ph.D., Rutgers-The State University.
- McHenry, Henry D., Jr. (1976) *Instructor in English* B.A., Yale University; M.A., University of Virginia.
- McIntyre, William F. (1974) *Assistant Professor of Social Work* B.A., Muskingum College; M.S.W., M.Sci.H., University of Pittsburgh.
- McKeever, Marian K. (1974) *Instructor in Interior Design* B.S., Pennsylvania State University; M.A., Michigan State University.
- McKeever, Patrick (1972) *Instructor in Education* B.A., M.S., Canisius College.
- McKenzie, Donald R. (1975) *Assistant Professor of Rehabilitation Counseling* B.A., Hastings College; M.S., University of Northern Colorado; Ed.D., University of Nebraska.
- McLaughlin, Phillip (1974) *Assistant Professor of Education* B.A., M.A., University of Kentucky; Ed.D., University of Georgia.
- McLeod, Alan M. (1969) *Associate Professor of Education* B.A., Washington and Lee University; M.Ed., Ed.D., University of Virginia.
- McMahon, Edith M. (1974) *Instructor in Mathematical Sciences* B.A., Albertus Magnus College; M.S., Northwestern University.
- McNutt, Robert J. (1975) *Instructor in English* B.A., M.A., University of Alabama.
- McNeil, Janet K. (1972) *Instructor and Assistant Reference Librarian* B.A., M.A. in Library Science, Denver University.
- McSweeney, Edward A. (1976) *Assistant Professor of Social Work* B.A., National University of Ireland; B.D., St. Patrick's College; M.S.W., University of South Carolina.
- Medas, Brian (1976)<sup>3</sup> *Instructor in Music* B.M., North Carolina School of the Arts.
- Mednick, Melvin (1972) *Associate Professor of Sociology and Anthropology* B.S., Temple University; M.A., Ph.D., University of Chicago.
- Meggs, Philip (1968) *Assistant Professor and Chairman of Communication Arts and Design* B.F.A., M.F.A., Virginia Commonwealth University.
- Meharg, Edward L. (1967) *Assistant Professor of Information Systems* B.A., University of Nevada; M.A., University of California.
- Melson, Gordon A. (1975) *Associate Professor of Chemistry* B.S., Ph.D., Sheffield University (England).
- Mercer, Richard W. (1973) *Assistant Professor of English* A.B., University of Michigan; M.A., University of Chicago; Ph.D., Syracuse University.
- Merritt, Jacqueline (1976) *Assistant Professor of Painting and Printmaking* B.A., Norfolk State University; M.A., University of Wisconsin.
- Messmer, Michael W. (1972)<sup>2</sup> *Assistant Professor of History* A.B., University of Notre Dame; M.A., Ph.D., Yale University.
- Messmer, Sue M. (1973) *Instructor in Art History* B.A., Duke University; M.A., Indiana University.
- Meyer, C. James (1973) *Instructor in Crafts* B.A., State University of New York, Albany; M.F.A., State University College, New Paltz.
- Milchin, Gerald W. (1974) *Instructor and Assistant Director of Admissions* B.S., M.S., University of Tennessee, Knoxville.
- Miles, Catherine E. (1976) *Visiting Professor of Accounting* B.S., M.S., Ph.D., University of Alabama; J.D., Emory University.
- Miller, David B. (1974) *Assistant Professor of Mathematical Sciences* B.S., M.A., Ph.D., University of California, Davis.
- Miller, Elbert G., Jr. (1973) *Assistant Professor of Management Science* B.S., M.A., Ph.D., University of Alabama.
- Miller, James B. (1971) *Assistant Professor of Painting and Printmaking* Diploma, A.D., Leads College of Art; M.F.A., University of Arkansas.
- Mills, Richard R. (1971) *Professor of Biology* B.A., Emory and Henry College; M.S., Ph.D., Virginia Polytechnic Institute and State University.
- Minton, Paul D. (1972) *Professor of Mathematical Sciences and Biostatistics and Dean, School of Arts and Sciences* B.S., M.S., Southern Methodist University; Ph.D., North Carolina State University.
- Mirr, Edward A. (1960) *Assistant Professor of Music* B.A., Queens College; M.A., Teachers College, Columbia University.
- Mitchell, Sandra T. (1973) *Assistant Professor of Social Work* B.A., M.S.W., University of Illinois.
- Mobley, Agnes R. (1976)<sup>3</sup> *Instructor in Music* B.A., University of Richmond.
- Moeser, John V. (1970) *Assistant Professor of Urban Studies* B.A., Texas Tech University; M.A., University of Colorado; Ph.D., George Washington University.
- Montroy, Leo D. (1974) *Assistant Professor of Biology* B.S., University of Windsor; Ph.D., University of Notre Dame.
- Moore, James, III (1970)<sup>3</sup> *Instructor in Music*.
- Moore, James T. (1970) *Assistant Professor of History* B.A., University of South Carolina; M.A., Ph.D., University of Virginia.
- Morgan, James P. (1974) *Assistant Professor of Administration of Justice and Public Safety* B.B.A., Manhattan College; M.P.A., City University, New York City.
- Morgan, Michael (1974)<sup>3</sup> *Instructor in Music* Diploma, Curtis Institute of Music.
- Moroni, Pauline (1967) *Instructor in Education and Counselor* B.S., Madison College; M.S., Eastern Illinois University.

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- Morris, Douglas K. (1970) *Assistant Professor of English* B.A., David Lipscomb College; M.A., Ph.D., University of Tennessee.
- Morris, Henry E., Jr. (1976)<sup>3</sup> *Instructor in Social Work* B.A., University of Richmond; M.S.W., Virginia Commonwealth University.
- Morris, Joseph R. (1969) *Assistant Professor of Mathematical Sciences* B.S., M.S., Virginia Polytechnic Institute and State University; M.A., Ph.D., University of Alabama.
- Morse, Charlotte C. (1976) *Associate Professor of English* A.B., Brown University; M.A., Ph.D., Stanford University.
- Mosley, Ronald B. (1973) *Assistant Professor of Physics* A.B., Berea College; M.S., Ph.D., Auburn University.
- Moszer, Max (1970) *Professor of Economics* A.B., A.M., Ph.D., University of Pennsylvania.
- Muller, Joan (1971) *Instructor and Slide Librarian* A.B., Goucher College.
- Mullins, L. Cleo (1976)<sup>3</sup> *Assistant Professor of Art History* B.A., University of Maryland; M.A., Cooperstown Graduate Program, Cooperstown, New York.
- Munjas, Barbara A. (1972) *Associate Professor of Nursing and Sociology* B.S., M.S., Ohio State University; M.A., Ph.D., University of Pennsylvania.
- Munro, George E. (1971) *Assistant Professor of History* B.A., Wheaton College; Ph.D., University of North Carolina.
- Murrill, Malcolm L. (1948) *Associate Professor of Mathematical Sciences* B.A., Yale University; M.S., University of Richmond.
- Mustafa, Husain (1975) *Professor of Political Science and Chairman, Department of Political Science* LL.B., M.S., The Ohio State University; Ph.D., American University.
- Myers, Carolyn Wade (1970) *Instructor and Serials Librarian* B.A., University of Florida; M.L.S., Peabody Graduate Library School.
- Myatt, Barbara (1973) *Assistant Professor of Education* B.S., University of Maine; M.A., Florida State University; Ed.D., University of Georgia.
- Nan, George D. (1963) *Associate Professor of Photography and Chairman, Department of Photography* B.F.A., Rochester Institute of Technology; M.S., Illinois Institute of Technology.
- Nelson, Francis C. (1967) *Associate Professor of History* B.A., Maurus College, Hungary; M.A., Ph.D., University of Budapest; Doctoral Degree in Law and Political Science, Francis Joseph State University.
- Nelson, Lynn D. (1972) *Associate Professor of Sociology and Anthropology* B.A., Abilene Christian College; M.A., University of Alabama; Ph.D., Ohio State University.
- Neumann, Margaretta R. (1952) *Associate Professor of Social Work* M.S., Ph.B., University of Chicago.
- Newcombe, Judith (1973) *Instructor of Education* B.S., Western Michigan University; M.A., Central Michigan University.
- Newdick, Richard L. (1966) *Associate Professor of Theatre* B.A., University of Maine; M.A., University of North Carolina.
- Newton, J. Wayne (1971) *Professor of Social Work* B.A., Wesleyan University; M.A., New York University; M.A.S.A., Ohio State University; Ph.D., Brandeis University.
- Noble, Cecile E. (1966) *Assistant Professor of French* B.S., Virginia Commonwealth University; Sorbonne, Paris, France; M.A., University of Richmond; Ph.D., University of Virginia.
- Noe, Charles Warren (1970) *Professor of Physical Education* B.S., University of Virginia.
- Noonan, John F. (1973) *Associate Professor of English and Director, Center for Improving Teaching Effectiveness* B.A., Wheeling College; M.A., Ph.D., Bowling Green State University.
- North, Harold E. (1965) *Associate Professor and Chairman, Department of Sculpture* B.F.A., Rhode Island School of Design; M.F.A., Virginia Commonwealth University.
- O'Bannon, John A. (1965)<sup>3</sup> *Instructor in Music* B.M., Illinois Wesleyan University.
- Odell, Mary (1976) *Instructor in Anthropology* B.S., Ohio University at Athens; M.A., Temple University.
- Oehler, John S. (1970) *Assistant Professor of Education* B.A., Davidson College; M.A.T., Ph.D., University of North Carolina.
- Olmosk, Kurt E. (1975) *Assistant Professor of Management and Coordinator, Management Center* B.S., Ph.D., Case Western Reserve University.
- O'Toole, Dennis (1967) *Associate Professor of Economics* B.A., College of William and Mary; M.S., Virginia Commonwealth University; Ph.D., Ohio University.
- Ottenbrite, Raphael M. (1967) *Professor of Chemistry* B.S., M.S., Assumption University; Ph.D., University of Windsor.
- Ozman, Howard A., Jr. (1970) *Professor of Education* A.B., University of Virginia; M.A., Ed.D., Columbia University.
- Pagels, John F. (1969) *Assistant Professor of Biology* B.S., Central Michigan University; M.S., Ph.D., Tulane University.
- Parashar, Om Datt (1973) *Assistant Professor of Special Education* M.S., M.Ed., University of Delhi; M.A., Panjab University; M.Ed., University of Toronto; Ed.D., University of Cincinnati.
- Parham, Iris A. (1976) *Assistant Professor of Psychology* B.A., University of Texas; M.A., West Virginia University; Ph.D., University of Southern California at Los Angeles.
- Parker, Jacqueline (1973) *Assistant Professor of Social Work* B.A., M.S.W., D.S.W., University of California at Berkeley.
- Parker, Osborne B. (1969) *Associate Professor of Education and Director, Counseling Center* B.S., Purdue University; M.S., Indiana University; Ed.D., Michigan State University.
- Parks, Gailyn (1976)<sup>3</sup> *Instructor in Music* B.M., University of Idaho; M.M., Virginia Commonwealth University.
- Parks, Lavada (1976)<sup>3</sup> *Instructor in Music* B.M., M.M., University of Idaho.

- Patten, Judith L. (1973) *Instructor in Physical Education* B.S., Western Michigan University; M.A., Central Michigan University.
- Payne, F. Dana (1970) *Assistant Professor and Coordinator of Academic Advising* A.B., Princeton University.
- Pearce, C. Glenn (1975) *Assistant Professor of Business Education and Office Administration* B.B.A., University of Georgia; M.A., New York University; Ph.D., Georgia State University.
- Pearson, Ellen D. (1969) *Instructor and Director of Student Financial Aids* B.S., South Carolina State College.
- Pendleton, James D. (1958) *Associate Professor of English* B.S., Davidson College; M.A., University of North Carolina.
- Pennington, Becky (1973)<sup>3</sup> *Instructor in Physical Education* A.B., Gettysburg College.
- Pennington, Jude Cole (1970) *Instructor in Physical Education* B.S., Lock Haven State Teachers College; M.Ed., Temple University.
- Pennline, James A. (1975) *Assistant Professor of Mathematical Sciences* B.S., Virginia Military Institute; Ph.D., University of Virginia.
- Peoples, Napoleon (1970) *Counselor and Assistant Professor of Education* B.A., Wilburforce University; M.Ed., Ed.S., Kent State University.
- Perry, Arnon (1976) *Visiting Associate Professor of Marketing* B.A., Hebrew University; M.B.A., Columbia University; Ph.D., University of Texas.
- Perry, Regenia A. (1967) *Associate Professor of Art History* B.S., Virginia State College; M.A., Ph.D., Western Reserve University.
- Perry, Vincent (1972) *Assistant Professor of Social Work* B.S., Hampton Institute; M.S.W., Syracuse University.
- Pfeifer, Carl (1965) *Associate Professor of Music* B.S., Juilliard School of Music; M.M., University of Miami (Florida).
- Pfeifer, Dorothy (1966)<sup>3</sup> *Instructor in Music* B.M., Augustana College.
- Pinkus, Helen (1975) *Professor of Social Work* B.A., Stanford University; M.S.W., Smith College; D.S.W., Columbia University.
- Platt, Tom (1975) *Instructor in Fashion Design* B.F.A., M.F.A., Syracuse University.
- Pollack, Philip L. (1976) *Instructor in Information Systems* A.B., Cornell University; M.S., University of Wisconsin.
- Pollak, Theresa (1928) *Professor Emerita of Painting and Printmaking* B.S., University of Richmond; D.F.A. (Hon.), University of Richmond; Harvard University (one summer); New York Art Students' League (four years); Hans Hofmann School of Art (one summer).
- Porach, Lee B. (1970) *Counselor and Instructor in Education* A.B., William and Mary; M.Ed., Ed.D., University of Virginia.
- Porter, Joseph H. (1975) *Assistant Professor of Psychology* B.S., M.S., Ph.D., University of Georgia.
- Potts, Sherry (1972) *Instructor in Art Education* B.F.A., University of Georgia; M.A.E., Virginia Commonwealth University.
- Powell, Judith (1974) *Assistant Professor of Education* B.S., Cornell University; OT Diploma, Tufts University; M.S., Hunter College of the City University of New York; Ph.D., University of Minnesota.
- Preston, David G. (1972) *Assistant Professor of Psychology* B.S., Tulane University; Ph.D., Louisiana State University.
- Priebe, Cheryl (1976)<sup>3</sup> *Instructor in Music* B.M., Virginia Commonwealth University.
- Priebe, Richard K. (1973) *Assistant Professor of English* B.A., Franklin and Marshall College; M.A., University of Michigan; Ph.D., University of Texas, Austin.
- Quarterman, Dale L. (1969) *Instructor in Photography* B.F.A., University of Georgia; M.S., Institute of Technology in Illinois.
- Rabung, John R. (1974) *Assistant Professor of Mathematical Sciences* B.A., University of Akron; M.A., Ph.D., Washington State University.
- Ramey, Walter (1975) *Assistant Professor of Education* B.S., Southeast Missouri State University; M.S., Iowa State University; Advanced Certificate (Degree) University of Illinois.
- Raphael, Frances B. (1973) *Assistant Professor of Social Work* B.A., New York University; M.S.W., University of Pennsylvania.
- Ray, William Samuel (1970) *Professor of Psychology and Chairman, Department of Psychology* B.A., Bridgewater College; M.A., Ph.D., University of Maryland.
- Raychowdhury, Pratip N. (1969) *Professor of Mathematical Sciences* B.S., University of Calcutta; B.A., University College (Calcutta); M.S., Brigham Young University; Ph.D., George Washington University.
- Ready, Keith F. (1976) *Assistant Professor of Recreation* B.S., Massachusetts State College; M.A., Miami University.
- Redmon, Robert B., Jr. (1975) *Assistant Professor of Philosophy and Religious Studies* B.S., North Carolina State University (Raleigh); M.A., Ph.D., University of North Carolina (Chapel Hill).
- Reed, James R., Jr. (1968) *Associate Professor of Biology* A.B., Harvard University; M.S., Cornell University; Ph.D., Tulane University.
- Renick, Charles R. (1953) *Professor of Sculpture* B.F.A., M.F.A., Virginia Commonwealth University.
- Rennie, James G., Jr. (1975) *Assistant Professor of Accounting* B.S., Hampden-Sydney College; M.C., University of Richmond; CPA.
- Reynolds, Elizabeth R. (1967) *Associate Professor of English* B.A., Winthrop College; M.A., Columbia University; Ph.D., University of South Carolina.
- Reynolds, John D. (1967) *Associate Professor of Biology* B.S., M.Ed., Temple University; Ph.D., University of South Carolina.
- Rhone, Henry G. (1970) *Instructor and Assistant Dean of Student Life* B.A., Amherst College; M.Ed., Virginia Commonwealth University.
- Richards, Walter L., Jr. (1951) *Associate Professor*

## 234 Board, Administration, and Faculty

- of Biology B.S., Virginia Military Institute; M.A., University of Virginia.
- Rimler, George Warren (1970) *Associate Professor of Management* B.S.M.E., Polytechnic Institute of Brooklyn; M.B.A., D.B.A., Georgia State University.
- Rivers, Richard (1969) *Associate Professor of Music* B.S., Juilliard School of Music; M.A., George Peabody College.
- Roach, J. Kenneth (1961) *Professor Emeritus of Business Education and Office Administration* A.B., Duke University; M.A., Columbia University; Ed.D., New York University.
- Robertson, Neale M. (1968) *Assistant Professor of Management Science* B.S., M.S., Virginia Commonwealth University.
- Robinson, J. Lawrence (1959) *Associate Professor of Music* A.B., University of South Carolina; M.M., University of Michigan.
- Rogers, Albert A. (1946) *Professor Emeritus of History* B.A., University of Richmond; B.S., M.A., Ph.D., University of Virginia.
- Roggemann, Peter J. (1976) *Assistant Professor of Urban Studies and Planning* B.A., Fordham University; M.C.R.P., Rutgers University; Ph.D., Rutgers University.
- Rose, Guy (1973) *Assistant Professor of Education* B.S., Appalachian State University; M.A., Eastern Carolina University; Ed.D., George Peabody College for Teachers.
- Rosenbaum, Jerrold S. (1975) *Assistant Professor of Mathematical Sciences* B.S., M.S., Dr.Sci.E., Columbia University.
- Ross, Carla C. (1976)<sup>3</sup> *Instructor in Music* B.M.E., University of Utah; M.M., Boston University.
- Ross, Richard R. (1976)<sup>3</sup> *Instructor in Music* B.M.E., Brigham Young University; M.M., University of Utah.
- Rothenberg, Elaine Z. (1960) *Professor of Social Work and Dean, School of Social Work* A.B., Queens College; M.S.S., Smith College.
- Rouse, Virginia A. (1965) *Coordinator, Community Music School* B.M. (Music Education), B.M. (Violin), M.M., Florida State University.
- Royster, Elizabeth S. (1964) *Assistant Professor of Physical Education* B.S., M.Ed., Virginia Commonwealth University.
- Rubin, Harvey W. (1972) *Associate Professor of Insurance* B.B.A., M.A.S., Ph.D., Georgia State University; CLU.
- Ruch, Charles P. (1974) *Associate Professor and Dean, School of Education* B.A., College of Wooster; M.A., Ph.D., Northwestern University.
- Rugg, Robert D. (1974) *Assistant Professor in Urban Studies* B.A., Wesleyan University; M.A., University of Chicago; Ph.D., University of Ottawa.
- Rule, Warren R. (1972) *Assistant Professor of Rehabilitation Counseling* A.B., Pfeiffer College; M.A., Appalachian State University; Ph.D., University of South Carolina.
- Russell, Dojelo C. (1965) *Professor of Social Work* B.A., University of Arkansas; M.S.W., Tulane University; D.S.W., Catholic University of America.
- Russell, Milo F. (1957) *Associate Professor of Painting and Printmaking* B.F.A., Virginia Commonwealth University; M.A., University of Virginia.
- Ryland, Anne P. (1962)<sup>3</sup> *Instructor in Interior Design* B.A., Westhampton College; Parsons School of Design.
- Sagay, Anirejuoritse (1972) *Assistant Professor of Economics* B.S., University of Lagos (Nigeria); M.A., Ph.D., University of Pittsburgh.
- Sands, Judy (1974) *Instructor of Education* B.A., Marshall University; M.E., Virginia Commonwealth University.
- Sange, Gary R. (1973) *Assistant Professor of English* A.B., M.A., San Francisco State College; M.F.A., University of Iowa.
- Sansing, Raymond C. (1972) *Assistant Professor of Mathematical Sciences* B.S., M.S., Ph.D., Southern Methodist University.
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- Saunders, David N. (1972) *Assistant Professor of Social Work* B.A., Dartmouth College; M.S.W., University of Michigan; Ph.D., Bryn Mawr College.
- Saunders, J. Roy, Jr. (1973)<sup>3</sup> *Associate Professor of Urban Studies* B.C.P., University of Virginia; M.A., George Washington University.
- Savage, John D. (1972) *Assistant Professor of Music* B.S., M.M., East Carolina University.
- Scalin, Charles B. (1968) *Assistant Professor of Communication Arts and Design* B.F.A., Art Institute of Chicago; M.F.A., Pratt Institute.
- Scalin, Marilyn (1976)<sup>3</sup> *Instructor in Communication Arts and Design.*
- Scanlan, Michael J. (1976) *Assistant Professor of Biology* B.A., St. Thomas College; M.S., Ph.D., University of Minnesota.
- Schantz, Alan Paul (1970) *Instructor in Art Education* B.A., Muhlenberg College; M.Ed., Temple University.
- Schedler, David A. (1969) *Assistant Professor of Mathematical Sciences* B.S., M.S., Oklahoma State University; Ph.D., George Washington University.
- Schiltz, Jack H. (1969) *Assistant Professor of Education* B.S., M.S., Southern Illinois University; Ed.D., Columbia University.
- Schmeelk, John F. (1975) *Assistant Professor of Mathematical Sciences* B.S., Seton Hall University; M.S., New York University; Ph.D., George Washington University.
- Schneider, Robert L. (1974) *Assistant Professor of Social Work* B.A., STB, Catholic University; M.S.W., D.S.W., Tulane University.
- Schoonover, Robert J. (1973) *Assistant Professor of Education* B.S., M.S., University of Wisconsin; Ed.D., Kansas University.
- Schrieberg, Charlotte S. (1965) *Associate Professor of Social Work and Director of Field Instruction* B.S., Westhampton College; M.S.S.W., Virginia Commonwealth University.
- Schulman, Barbara (1976) *Instructor in Art Education* B.S., M.F.A., Kent State University.

- Schultz, Robert F. (1976) *Instructor in English* B.A., M.A., Western Michigan University.
- Schulz, Peter (1974) *Assistant Professor in Urban Studies* B.Sc., Shippensburg State College; M.A., Illinois State University; Ph.D., University of Illinois.
- Schumacher, Sally (1974) *Assistant Professor of Education* B.A., Duke University; M.A., Northwestern University; M.Ed., University of North Carolina; Ph.D., Washington University.
- Schwartz, Martin S. (1974) *Associate Professor of Social Work* B.A., University of Wisconsin; M.S. in S.S., Boston University; Ed.D., Columbia University.
- Schwarz, Philip J. (1972) *Assistant Professor of History* A.B., Brown University; M.A., University of Connecticut; M.L.S., Rutgers—The State University; Ph.D., Cornell University.
- Schwartzbaum, Allan M. (1972) *Associate Professor of Sociology and Anthropology* B.A., Harpur College, State University of New York at Binghamton; M.S., Ph.D., Cornell University.
- Scotch, C. Bernard (1968) *Professor of Social Work* B.A., Boston University; M.S.W., University of Pittsburgh; Ph.D., Brandeis University.
- Scott, Joyce E. (1974)<sup>2</sup> *Instructor in English* A.B., Virginia Union University; M.A., University of Richmond.
- Scott, Larry S. (1973) *Assistant Professor of Mathematical Sciences* A.B., Fairbury Jr. College; B.S., M.S., Ph.D., Manhattan State University.
- Scott, Richard A. (1968) *Associate Professor of Accounting* B.B.A., City University of New York; M.B.A., Columbia University; M.B.A., Boston University; Ph.D., American University; CPA.
- Scott, Ronald J. (1973) *Assistant Professor in Administration of Justice and Public Safety* B.A., Baylor University; M.A., California College at Los Angeles; Ph.D., Southern Illinois University.
- Scully, Robert W. (1975) *Assistant Professor of Management* A.B., Bowdoin College; M.B.A., University of Pennsylvania; Ph.D., University of Massachusetts.
- Scully, Diana H. (1976) *Assistant Professor of Sociology* B.A., M.A., Ph.D., University of Illinois at Chicago Circle.
- Segal, Errol (1975) *Assistant Professor of Theatre* B.A., Brooklyn College; M.A., San Francisco State.
- Segal, Florence (1968) *Assistant Professor of Social Work and Director of Continuing Education* B.A., Queens College; M.A., University of Chicago.
- Segal, Steve (1975)<sup>3</sup> *Instructor in Communication Arts and Design* B.F.A., Virginia Commonwealth University.
- Seiber, Bruce A. (1974) *Assistant Professor of Physics* B.S., Humboldt State College; M.S., Auburn University; Ph.D., Colorado State University.
- Seidenberg, Arthur J. (1968) *Assistant Professor of Biology* B.S., Brooklyn College; Ph.D., University of Illinois.
- Seipel, Joseph (1974) *Instructor in Sculpture* B.S., University of Wisconsin; M.F.A., Maryland Institute, College of Art.
- Sellers, James R. (1971) *Assistant Professor of Recreation and Chairman, Department of Recreation* B.S., M.Ed., North Carolina State University; Ed.D., University of Georgia.
- Seyfarth, John (1974) *Assistant Professor of Education* B.S., University of Chattanooga; M.S., Ed.D., University of Tennessee.
- Sharman, Charles Christian (1971) *Associate Professor of Education* B.S., Virginia Commonwealth University; M.T.S., College of William and Mary; Ed.D., University of Virginia.
- Sharp, Nicholas A. (1971) *Assistant Professor of English and Coordinator, Non-Traditional Studies* B.A., University of Kansas; M.A., Ph.D., Ohio State University.
- Sharp, Preston E. (1974) *Professor of Administration of Justice and Public Safety* A.B., Geneva College; M.A., Ph.D., University of Pittsburgh.
- Sharpley, John M. (1967) *Associate Professor of Biology* B.A., Hampden-Sydney College; M.S., University of Richmond.
- Sharshar, Abdelaleem M. (1970) *Assistant Professor of Economics* B. Com., University of Cairo (Egypt); M.A., Williams College; M.Ph., Ph.D., George Washington University.
- Sheffield, Robert N. (1968) *Assistant Professor and Assistant Dean, School of Business* B.S., M.S., Virginia Commonwealth University.
- Sheley, Darryl K. (1974) *Instructor in Administration of Justice and Public Safety* A.A., College of Southern Utah; B.S., Brigham Young University.
- Shelton, James B. (1974) *Instructor in Accounting* B.S., University of Maryland; M.Acc., Virginia Polytechnic Institute and State University; CPA.
- Sherrard, Mary Alice (King) (1972) *Reference Librarian* B.A., American University; M.S., Florida State University.
- Sherrard, S. McCluer (1970) *Instructor and Cataloger for Library* B.A., Roanoke College; M.A.L.S., George Peabody College.
- Sherron, Ronald H. (1970) *Associate Professor of Education* B.S., North Carolina State University; M.Ed., Ph.D., University of North Carolina.
- Shiles, Eugene J. (1972) *Assistant Professor of Physics* B.S., Northern Illinois University; M.A., Ph.D., University of California at Santa Barbara.
- Shillady, Donald Douglas (1970) *Associate Professor of Chemistry* B.S., Drexel University; M.A., Princeton University; Ph.D., University of Virginia.
- Shtogren, John A. (1974) *Assistant Professor of the Center for Improving Teaching Effectiveness and of English* B.A., M.A., Ph.D., University of Michigan.
- Siegal Lynn S. (1976) *Assistant Professor of Biology* B.S., University of Maryland; Ph.D., University of Minnesota.
- Silliman, Christopher R. (1974) *Instructor in Crafts* B.A., Ohio Wesleyan University; M.F.A., New York State College of Ceramics at Alfred University.
- Silvers, Arthur L. (1975) *Associate Professor of Urban Studies and Planning* B.S., New York

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- University; M.B.A., Wharton Graduate Division, University of Pennsylvania; Ph.D., University of Pennsylvania.
- Silvers, Stuart J. (1973) *Associate Professor of Chemistry* B.A., Swarthmore College; Ph.D., Yale University.
- Simpson, Frank M. (1976) *Assistant Professor of Chemistry* B.A., M.S., Ph.D., Texas A and M University.
- Sims, Robert L. (1976) *Assistant Professor of French* B.A., University of Michigan; M.A., Ph.D., University of Wisconsin.
- Sin, Betty (1973) *Catalog Librarian* B.A., National Chegchi University; M.L.S., Emory University.
- Sleeth, Randall G. (1975) *Assistant Professor of Management* B.A., University of New Hampshire.
- Smetana, Frantisek (1973) *Instructor in Music* Diploma, Prague Conservatory of Music; Diploma, Ecole Normale de Musique.
- Slater, Merle V. (1966) *Assistant Professor of Business* B.S.B.A., Washington University (St. Louis); M.A.Ed., University of Florida.
- Sloope, Billy W. (1968) *Professor of Physics and Chairman, Department of Physics* B.S., University of Richmond; M.S., Ph.D., University of Virginia.
- Smith, Alfred L., Jr. (1974) *Assistant Professor of Business* B.A., Virginia Military Institute; J.D., University of Richmond; LL.M., New York University.
- Smith, Donald L. (1968) *Instructor in English and Assistant Director of Admissions* B.A., Virginia Commonwealth University; M.Ed., University of Richmond.
- Snellings, Eleanor C. (1968) *Associate Professor of Economics* A.B., M.A., University of North Carolina; Ph.D., Duke University.
- Sparks, Howard L. (1966) *Professor of Education and Associate Vice-President for Continuing Education* A.B., College of William and Mary (Norfolk); M.A., Ed.D., Teachers College, Columbia University.
- Sparks, Kenneth R. (1973)<sup>3</sup> *Associate Professor of Mass Communications* B.S., M.S., Ph.D., Syracuse University; J.D., George Washington University.
- Spencer, Nancy J. (1973) *Assistant Professor of Psychology* B.A., Boston University; M.S., Ph.D., Pennsylvania State University.
- Sperry, John B. (1971) *Professor of Accounting* B.S., New York University; M.B.A., University of Pennsylvania; Ph.D., American University; CPA.
- Spinelli, Michael A. (1969) *Associate Professor of Management Science* B.A., Ph.D., West Virginia University.
- Stackhouse, Kenneth A. (1971) *Assistant Professor of Spanish* B.A., Drew University; M.A., Ph.D., University of Florida.
- Stanley, James H. (1976) *Instructor in Accounting* B.S., University of Richmond; M.A.T., University of South Carolina.
- Stauss, Nyles (1973) *Assistant Professor of Education* B.S., Lakeland College; M.S., Ph.D., University of Wisconsin, Madison.
- Steinke, Carole C. (1972) *Instructor in Fashion Design* B.S., Art Institute of Chicago; M.F.A., Virginia Commonwealth University.
- Stephenson, William (1975) *Instructor in Social Work* B.A., Virginia Commonwealth University.
- Steward, Donald B. (1976) *Assistant Professor of Information Systems* B.S., Iowa State University; M.S., Stanford University; Ph.D., University of Wisconsin; CDP.
- Stewart, Morris W. (1975) *Instructor in Recreation* B.S., M.S., Indiana State University.
- Stewart, William R. (1973) *Professor of Art and Director of Graduate Studies, The School of the Arts* B.F.A., Maryland Institute of Fine Arts; M.Ed., Loyola College; D.Ed., The Pennsylvania State University.
- Stinchcomb, James D. (1971) *Associate Professor and Chairman, Department of Administration of Justice and Public Safety* B.S., M.A., University of Pittsburgh.
- Stokes, William J. N. (1974)<sup>3</sup> *Instructor of Music* A.B., St. Andrews Presbyterian College; B.M., Eastman School of Music; S.M.M., Union Theological Seminary (N.Y.).
- Strandberg, Warren (1972) *Professor of Education* B.A., University of Minnesota; M.A., M.A.T., Ph.D., Northwestern University.
- Strube, Nancy L. (1974) *Assistant Professor of Communication Arts and Design* Certificate, Parsons School of Design.
- Strydesky, Rebecca (1974) *Instructor of Education* B.S., Virginia Commonwealth University; M.S., Virginia Polytechnic Institute and State University.
- Stump, Billy Lee (1966) *Associate Professor of Chemistry* B.S., Carson-Newman College; Ph.D., University of Tennessee.
- Sugg, Michael L. (1975) *Assistant Professor of Social Work* A.A., Rochester Junior College; B.A., University of Minnesota; M.S.W., University of Washington (Seattle); M.A., Ph.D., University of Pittsburgh.
- Sung, Alexander (1974)<sup>3</sup> *Instructor in Music* Diploma, Hochschule fur Musik und Darstellende Kunst "Mozarteum," Salzburg; Diploma, Hochschule fur Musik und Darstellende.
- Swanson, Jack (1976) *Instructor in Theatre* B.A., Lawrence University.
- Swartz, Henry C. (1972) *Instructor in Fashion Design* B.F.A., Pratt Institute.
- Swyers, William R. (1969) *Associate Professor of Education* B.M.Ed., Murray State University; M.S., University of Notre Dame; Ed.D., University of Georgia.
- Taggart, George B. (1971) *Associate Professor of Physics* B.S., College of William and Mary; Ph.D., Temple University.
- Talbert, Robert Martin (1969) *Assistant Professor of History and of Philosophy and Religious Studies* B.A., Wake Forest University; B.D., Southeastern Baptist Theological Seminary (N.C.); Ph.D., Hebrew Union College.
- Tarter, Martin A., Jr., (1969) *Associate Professor of Education* B.S., Virginia Polytechnic Institute and State University; M.Ed., Ed.D., University of Virginia.

- Teczar, Steven Walter (1972) *Assistant Professor in Interior Design* B.A., M.A., University of Missouri.
- Temple, T. Edward, Jr. (1974)<sup>1</sup> *President of the University and Professor of Urban Studies* B.S., M.Ed., LL.D., College of William and Mary.
- Templeton, Isaac (1974) *Instructor of Education* B.A., Claflin College; M.A., Temple University.
- Tennant, Donald (1952) *Professor Emeritus of Music* B.S., Ohio State University; M.A., University of Michigan; Ph.D., State University of Iowa.
- Thedford, William A. (1970) *Assistant Professor of Mathematical Sciences* B.S., M.S., Oklahoma State University; Ph.D., New Mexico State University.
- Thomas, Edwin R. (1950, 1955) *Professor of Psychology* B.A., University of Richmond; M.S., North Carolina State College; Ph.D., Syracuse University.
- Thomas, Mary Ellen (1969) *Assistant Professor and Reference Librarian* B.A., Westhampton College; M.S., L.S., University of North Carolina.
- Thomas, Ronald B. (1972) *Associate Professor and Chairman, Department of Music* Mus. B., Mus. M., Boston University.
- Thompson, Nancy K. (1969) *Assistant Professor and Acting Chairman, Department of Crafts* B.S., Ball State Teachers College; M.F.A., Indiana University.
- Thornton, Jack E. (1969) *Associate Professor of Finance* B.S., M.S., Ph.D., University of North Carolina.
- Thornton, Virginius B., III (1972) *Assistant Professor of History and Afro-American Studies* B.A., Virginia Union University; M.A., Virginia State College.
- Thralls, Leo A. (1973) *Assistant Professor in Rehabilitation Counseling* A.B., University of Miami; M.R.C., University of Florida.
- Timmons, Ronald A. (1971) *Instructor and Associate Director of General Studies* B.S., Virginia Union University; M.A., The Catholic University of America.
- Tipton, Robert M. (1966) *Associate Professor of Psychology* B.S., M.S., Virginia Commonwealth University; Ph.D., University of Missouri.
- Tisinger, Betty (1975) *Assistant Professor of Art Education* A.B., Berea College; M.A., Madison College; D.Ed., Pennsylvania State University.
- Trocki, David J. (1976) *Instructor in Anthropology* B.A., Divine Word College; M.Th., Hochschule St. Augustin (West Germany); M.A., University of Rochester.
- Troland, Charles E., Jr. (1976) *Assistant Professor of Accounting* B.A., Princeton University; J.D., University of Virginia; LL.M., New York University.
- Tropp, Emanuel (1966) *Professor of Social Work* B.S.S., College of the City of New York; M.S.S.W., Columbia University.
- Tsuchiya, Ronald R. (1973) *Assistant Professor of Physical Education* B.S., M.S., Indiana University.
- Tucker, Neda Bine (1976) *Instructor in Business Education and Office Administration* B.S., West Virginia Wesleyan College; M.Ed., University of Pittsburgh.
- Tucker, Thomas L. (1973) *Instructor and Admissions Counselor* B.S., Lincoln University.
- Tucker, Woodie L. (1957) *Professor of Business Education and Office Administration* B.S., University of Virginia; M.Ed., Ph.D., University of Pittsburgh.
- Tuckwiller, George III (1974)<sup>3</sup> *Instructor in Music* B.M., Virginia Commonwealth University.
- Turpin, William H. (1969) *Associate Professor of Mass Communications* A.B., University of Georgia; M.A., University of Florida.
- Umberger, Paul M. (1959) *Assistant Professor of Management Science* B.S., M.S., Virginia Polytechnic Institute and State University.
- Urofsky, Melvin I. (1974)<sup>2</sup> *Professor of History and Chairman, Department of History* A.B., M.A., Ph.D., Columbia University.
- Vacca, Richard S. (1967) *Associate Professor of Education and Chairman, Department of Secondary/Post Secondary Education* A.B., Lafayette College (Pennsylvania); M.S., State University of New York at Oneonta; Ed.D., Duke University.
- Van de Walle, John (1973) *Assistant Professor of Education* B.A., Bellarmine College; M.S., Saint Louis University; Ph.D., Ohio State University.
- Van Winkle, Lester (1969) *Assistant Professor of Sculpture* B.S., East Texas State University; M.A., University of Kentucky.
- Van Wolkenten, Raymond V., Jr. (1974) *Assistant Professor of Information Systems and Mathematical Sciences* B.S., University of North Carolina; M.S., Ph. D., Georgia Institute of Technology.
- Vaught, Kathleen (1976)<sup>4</sup> *Instructor in Music* B.M., Temple University; M.M., New England Conservatory.
- Versteeg, Robert J. (1975) *Assistant Professor of Theatre* B.A., Ohio Wesleyan University; M.Div., Garrett Theological Seminary; M.A., University of North Carolina.
- Vlahcevic, Sonia K. (1966) *Assistant Professor of Music* B.A., New England Conservatory; M.M., Western Reserve University; Ph.D., Catholic University.
- Walker, Ruby Clayton (1970) *Assistant Professor of Social Work* B.S., Virginia Union University; M.S.S.W., Virginia Commonwealth University.
- Warmenhoven, Henri J. (1968) *Associate Professor of Political Science* LL.B., LL.M., University of Leyden; M.A., Ph.D., University of Melbourne, Australia.
- Washer, Lois McG. (1940) *Professor Emerita of Social Work* B.S., Carnegie Institute of Technology; M.S.W., Virginia Commonwealth University.
- Watson, Joan E. (1974) *Instructor in Sculpture* B.F.A., University of Rhode Island; M.F.A., Tyler School of Art, Temple University.
- Watson, Toy F. (1976) *Assistant Professor of Social Work* A.B., Wheaton College; M.S.S.W., Virginia Commonwealth University.



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- Watts, Albert C. (1974) *Instructor in Social Work* A.A., St. Charles College; B.A., M.S.W., University of South Carolina.
- Welch, Rizpah L. (1967) *Professor of Education and Chairman, Department of Special Education* B.S., Elizabeth City (N.C.) Teachers College; M.S., Ed.D., Indiana University.
- Wells, Mabel G. (1973) *Assistant Professor of Social Work* B.A., Howard University; M.S.W., Howard University.
- Welzel, Alvin K. (1968) *Associate Professor of Marketing* B.S., Rutgers University; M.S., New York University.
- Wendschuh, Ronald (1974) *Instructor in Theatre* B.A., Luther College (Decorah, Iowa); M.F.A., University of Minnesota.
- Werner, Nancy B. (1975) *Assistant Professor of Social Work* B.A., Westhampton College; M.S.W., Washington University.
- Westermann, Harland W. (1969) *Professor of Urban Studies and Dean, School of Community Services* B.A., M.A., George Washington University; Ph.D., Clark University.
- Wetton, Philip S. (1969) *Assistant Professor of Painting and Printmaking* Diploma, Coventry College of Art.
- Wetzel, James N. (1974) *Assistant Professor of Economics* B.S., University of Wisconsin; Ph.D., University of North Carolina.
- Wheatley, Michael (1974) *Assistant Professor of Art Foundation Program* B.S., East Texas State University; M.A., Ohio State University.
- White, David M. (1974) *Professor of Mass Communications* A.B., Cornell College; M.S., Columbia University; Ph.D., University of Iowa; Honorary degrees: L.H.D., Cornell College; L.L.D., Saints College (Mississippi).
- White, Ellen E. (1973) *Instructor in English* B.S., Southern Connecticut State College; M.S., Central Washington State College.
- White, John Ellington (1973) *Assistant Professor of English* B.A., Kenyon College; M.A., Johns Hopkins University.
- White, Robert L. (1973) *Office of Library Research* A.B., California State University; M.P.A., M.L.S., University of Southern California.
- Whitesell, J. Edwin (1966) *Professor Emeritus of English* A.B., Randolph-Macon College; M.A., Ph.D., Harvard University.
- Whithed, Marshall D. (1976) *Associate Professor of Administration of Justice and Public Safety* B.A., M.A., University of Massachusetts; Ph.D., Tufts University.
- Widman, Leif (1976) *Visiting Assistant Professor of Marketing* B.B.A., Stockholm School of Economics and Business Administration; Ph.D., Stockholm University.
- Wiggins, Ralph C., Jr. (1975) *Assistant Professor of Psychology* B.A., University of North Carolina; M.A., Temple University.
- Wikstrom, Nelson (1971) *Associate Professor of Political Science* B.A., Northeastern University; M.A., Ph.D., University of Connecticut.
- Willett, Natalie (1976)<sup>3</sup> *Instructor in Music* B.M.E., M.M., Peabody Conservatory of Music.
- Wilchek, Frederick C. (1974)<sup>3</sup> *Instructor in Music* B.M., American University.
- Williams, Earl (1972) *Assistant Professor of Education* B.S., Troy State University; M.Ed., Florida Atlantic University.
- Williams, J. Sherwood (1971) *Associate Professor of Sociology* B.A., California State College at Long Beach; M.A., California State College at Los Angeles; Ph.D., Washington State University.
- Williams, Jackie G. (1957) *Assistant Professor of Accounting* B.S., Madison College; M.S., Virginia Commonwealth University.
- Williams, Judy C. (1974) *Assistant Professor of Philosophy and Religious Studies* B.A., Agnes Scott College; M.A., Ph.D., University of California, Davis.
- Williams, Tanya (1973) *Instructor of Education* B.A., University of California at Los Angeles; M.A., George Peabody College.
- Williams, Wendell W. (1974) *Assistant Professor of Social Work* A.B., College of Emporia; M.A., University of Kansas; M.S.G.W.E., George Williams College; M.S., Haverford College; Ph.D., Indiana University.
- Willis, H. David (1956) *Associate Professor of Accounting* B.S., West Virginia University; M.Ed., Virginia Polytechnic Institute and State University.
- Windmueller, Otti Y. (1953) *Professor of Fashion Design* Journeyman Costume Designer, Trained in Germany; B.F.A., Virginia Commonwealth University; Diploma, Munich.
- Winebrenner, Daniel K. (1967) *Assistant Professor of Crafts* B.F.A., M.F.A., Rochester Institute of Technology.
- Wingfield, Mervyn W. (1970) *Professor and Chairman, Department of Accounting* A.B., College of William and Mary; M.S., University of Richmond; Ph.D., University of Illinois; CPA.
- Winters, Lawrence J. (1972) *Professor of Chemistry and Chairman, Department of Chemistry* A.B., Washington University, St. Louis; Ph.D., Kansas University.
- Wise, Michael S. (1972) *Assistant Professor of Recreation* B.S., North Carolina State University; M.S., Indiana University; Ed.D., University of Georgia.
- Witt, Patricia A. (1975) *Assistant Professor of Business Education and Office Administration* B.S., University of Tennessee; M.A., Western Kentucky University; Ed.D., University of Kentucky.
- Woolley, George A. C., III (1976) *Instructor in Business Administration and Management* B.S., M.B.A., Virginia Commonwealth University.
- Wompieriski, Claire (1975) *Assistant Professor of Social Work* B.A., University of Pennsylvania; M.S.S., Bryn Mawr College; D.S.W., University of Pennsylvania.
- Wood, James A. (1969) *Associate Professor of Mathematical Sciences* B.S., Georgetown University; M.A., Ph.D., University of Virginia.
- Woodlief, Ann M. (1972) *Assistant Professor of English* B.A., M.A., Wake Forest University; Ph.D., University of North Carolina.

- Woolley, George A. C. III (1976) *Instructor in Business Administration and Management* B.S., M.B.A., Virginia Commonwealth University.
- Wright, Keith C. (1957) *Professor of Rehabilitation Counseling* A.B., M.A., Marshall College.
- Wynne, Albert James (1974)<sup>2</sup> *Instructor in Information Systems* B.S., Rensselaer Polytechnic Institute; M.S., Virginia Commonwealth University.
- Yarowsky, Morris (1969) *Associate Professor of Painting* A.B., Dartmouth College; M.F.A., California College of Arts and Crafts.
- Yasuda, Thomas T. (1975) *Assistant Professor of Communication Arts and Design* B.A., M.F.A., University of California at Los Angeles.
- Yim, Yong Soon (1974) *Assistant Professor of Political Science* B.A., Sung Kyun Kwan University, Korea; M.A., University of Illinois. Urbana; Ph.D., Rutgers-The State University.
- Yoo, Jang H. (1976) *Assistant Professor Economics* B.A., Seoul National University; M.A., University of California at Los Angeles; Ph.D., Texas A and M University.
- Yung, Ringo (1970) *Associate Professor of Interior Design* B.A., Tientsin University; M.F.A., University of Kansas.
- Zaid, Barry (1976) *Assistant Professor of Communication Arts and Design* B.A., University of Toronto.
- Zwicker, Marcia F. (1970) *Instructor and Assistant to the Director of Evening College and Summer Sessions* A.B., Brown University; M.A., University of Connecticut.

## EVENING COLLEGE ADJUNCT FACULTY (1976-1977)

- Adair, Thomas R., B.F.A., M.F.A.  
*Art History, Sculpture*
- Adams, Paul, B.A., C.P.A.  
*Business*
- Adams, Theodore J., B.S., M.S.  
*Mathematics*
- Ade, William E., B.S., M.S.  
*Education*
- Adkins, Benjamin H., Jr., B.S., M.S.  
*Business*
- Adkins, Chase M., Jr., B.S., M.S., CPA  
*Business*
- Ahr, Paul R., A.B., Ph.D.  
*Psychology*
- Ailor, William H., Jr., B.S., B.Ch.E., P.E.  
*Mathematics*
- Alman, Ted I., A.A.S., B.A., M.S.P.  
*Urban Studies*
- Alston, Peter V., B.S., Ph.D.  
*Chemistry*
- Ancarrow, Ann B., B.A., M.H.  
*English*
- Anderson, Barbara C., M.A., Ph.D.  
*History*
- Anderson, Mary G., B.S.  
*Chemistry*
- Arling, Gregory W., B.A., M.A., Ph.D.  
*Sociology*
- Armstrong, James O. II, B.S., M.S., Ed.D.  
*Business*
- Arnold, Virginia A., B.S., M.A., Ph.D.  
*Education*
- Aron, Linwood M., B.A.  
*Business*
- Arterburn, Anne J., B.A., M.S.  
*Rehabilitation Counseling*
- Arvis, Paul F., B.A., M.A., Ph.D.  
*Business*
- Asbury, William C., B.S., M.Ed.  
*Education*
- Askew, Richard B. M., B.F.A.  
*Theatre*
- Bailey, Wyman H., Jr., B.S., M.S.  
*Business*
- Ballard, David G., B.A.  
*Theatre*
- Banes, Albert J., B.A., M.S., Ph.D.  
*Biology*
- Barber, Robert R., Jr., B.S.  
*Mass Communications*
- Barbour, Muriel D., B.S.  
*Recreation*
- Barham, Gene L., B.A., M.Ed.  
*Education*
- Barr, Patsy L., B.A.  
*Latin*
- Bass, Ethel L., B.S.  
*Rehabilitation Counseling*
- Bell, Theron P., B.S., M.S., CPA  
*Business*
- Bennett, Beate H., B.A., Ph.D.  
*English*
- Berman, Myron R., B.S., M.A., Ph.D.  
*Religious Studies*
- Berry, William W., B.S.E.E., M.C.  
*Business*
- Besenfelder, Kathleen B., A.S., B.S., M.S.  
*Business*
- Bilyeu, Francile J., B.M., M.M.  
*Music*
- Birdsell, John J., B.A.  
*Administration of Justice and Public Safety*
- Bjork, William D., B.A., M.A.  
*Education*
- Blem, Leann B., B.S., M.S.  
*Biology*
- Blood, Elizabeth R., B.S.  
*Biology*
- Blostein, Gini A., B.S., M.S.  
*Education*
- Borucki, Phyllis A., B.S., M.Ed.  
*Education*
- Bosher, William C., Jr., B.A., M.Ed., Ed.D.  
*Education*
- Boswell, Robert F., Jr., B.A.  
*Chemistry*
- Bourlas, Manuel C., B.S., M.S.  
*Chemistry*
- Bradman, Morton, A.B., M.S., Ph.D.  
*Education*

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- Brannon, R. Marshall, B.A., M.A.  
*Education*
- Briceland, Penelope W., A.B., M.A.  
*History*
- Brightwell, Jack A., B.A., M.S.  
*Rehabilitation Counseling*
- Brocklehurst, Robert L., B.A., M.S.  
*Rehabilitation Counseling*
- Brooks, John G., B.S., M.S.  
*Mathematics*
- Brown, E. Carolyn, B.S., M.S.  
*Community Services*
- Bruch, Alvan, S.B., M.S., Ph.D.  
*Urban Studies*
- Bryant, Vincent L.  
*Fashion Design*
- Bullis, E. Wayne, B.A., M.Ed.  
*Education*
- Burke, John R., A.B.  
*Mass Communications*
- Burley, Carlton E., A.B., M.S.Ed., M.S.  
*Mathematics*
- Busic, Janice A., B.S.  
*Mathematics*
- Burroughs, Kendall E., B.B.A., M.S.  
*Business*
- Callahan, Errett H., Jr., B.A., M.F.A.  
*Anthropology*
- Carlton, Richard H., B.A., M.H.  
*Mass Communications*
- Carne, William  
*Social Work*
- Carnes, Charlotte C., A.A., B.A., M.S.W.  
*Social Work*
- Cartwright, Dennis H., A.B., M.S.  
*Mathematics*
- Casey, Marion T., B.A., M.A., Ph.D.  
*History*
- Cable, Nancy G., B.S., M.Ed.  
*Education*
- Cecil, Jane A.  
*Education*
- Challis, David J., B.A., M.A., Ph.D.  
*Spanish*
- Chappell, Willie A., Jr., A.B., M.Div., S.T.M.  
*Religious Studies*
- Childress, G. Wesley, Jr., B.S., M.S.  
*Mathematics*
- Christian, Clarice, B.A., M.Ed.  
*Education*
- Cisne, Maxwell G., B.S., M.C., C.P.A.  
*Business*
- Cohen, Stuart L., B.S., Ph.D.  
*Chemistry*
- Coiner, Clayborne M., B.A., M.A.  
*Business*
- Collins, W. Michael, B.F.A.  
*Photography*
- Conwell, George T., B.A., M.S.  
*Business*
- Cooper, Anne M., A.B., M.A.  
*Mass Communications*
- Coppage, Philip R., B.A., M.A.  
*Physical Education*
- Coppage, William T., B.A., M.Ed., MS.  
*Rehabilitation Counseling*
- Correia, Charles A., B.S., M.A., M.S.  
*Business*
- Cosby, James L., B.S., M.S.  
*Business*
- Cousins, Taylor K., B.S.  
*Social Sciences, Economics*
- Covington, Diana S., B.S., M.M.E.  
*Music*
- Cox, Gloria T., B.S., M.Ed.  
*Education*
- Craun, Nancy A., B.F.A.  
*Physical Education*
- Cudlipp, William S., B.A., M.A., Ph.D.  
*Spanish*
- Cutler, S. James, B.S., M.S.  
*Rehabilitation Counseling*
- Dabney, Thomas C., B.B.A., M.B.A., J.D.  
*Business*
- Danner, Bonnie P., B.S., M.S.  
*Mathematics*
- Danner, David W., B.A., B.Div., M.Ed., Ed.D.  
*Education*
- Deane, Brian C., B.A., M.A.  
*Philosophy*
- Deckert, Kevin P., B.S.  
*Physical Education*
- Deloyht, John A., B.A.  
*Business*
- Deveney, Mark  
*Physical Education*
- Dewell, Robert E., B.M., M.M.  
*Music*
- Dierks, Helen V., B.F.A.  
*Interior Design*
- Dillard, Margaret M., B.F.A.  
*Fashion Design*
- Doehring, Alvin W., B.S., M.B.A., C.P.A.  
*Business*
- Dollitz, Greta F.  
*Music*
- Douthat, Sybil, B.S., M.Ed.  
*Mathematics*
- Downes, Ann H., B.S., M.S.  
*Rehabilitation Counseling*
- Drumheller, Mary E., A.B., M.S.  
*Business*
- Dunn, Elisabeth O., Diploma  
*Russian*
- Dwyer, Rowland W., Jr., B.S., Ph.D.  
*Chemistry*
- Edens, Helen S.,  
*Education*
- Eger, Barbara F., B.A., M.A., Ph.D.  
*German*
- Emory, Samuel T., Jr., A.B., M.A., Ph.D.  
*Geography*
- Ernst, William J. III, B.A., M.A.  
*Community Services*
- Esleeck, Richard C., Jr., B.S., M.B.A., C.P.A.  
*Business*
- Evans, Peter S., B.S.P.  
*Biology*

- Fagan, Esther, B.A., M.A., M.S.  
*Education*
- Fair, M. Kathleen, B.A., M.A.  
*Mass Communications*
- Farino, Carol S., B.S.  
*Computer Sciences*
- Farmer, Robert T., B.S., M.S.  
*Business*
- Fiorino, John V., B.S., M.S.  
*Rehabilitation Counseling*
- Fouts, J. Samuel, B.A., LL.B.  
*Mass Communications*
- Frazier, Linda, B.S.  
*Education*
- Freed, Robert L., B.S., J.D., C.P.A.  
*Business*
- Friedlander, Hilda M., B.S., M.S.  
*Education*
- Funkhouser, James B., B.S., M.D.  
*Rehabilitation Counseling*
- Gabel, Philip M., B.A., M.G.A., Ph.D.  
*Economics*
- Gee, Edward S., B.A., M.B.A.  
*Business*
- Gerow, Clare W., B.S., Ph.D.  
*Mathematics*
- Gibbs, Nancy H., B.S., M.S.  
*Education*
- Gibson, Joyce S., B.A., M.S.  
*English*
- Gibson, Mary L. V., B.A., M.S.  
*Mathematics*
- Gill, George M., Jr., B.S.  
*Business*
- Gonet, Richard, B.A., M.Ed., M.A., J.D.  
*Sociology*
- Gorbett, Frank J., B.A., M.A.  
*Rehabilitation Counseling*
- Green, Frances D., A.B.  
*Fashion Design*
- Grey, Barbara R., B.A., M.A.  
*Education*
- Griffith, Douglass P., A.B., M.Ed.  
*Business*
- Gulliksen, Rita B., B.M., M.M.  
*Music*
- Hafer, John W., B.A., M.A., Ph.D.  
*English*
- Hahn, Milton R., B.A., M.A.  
*Spanish*
- Haile, William G., B.S., M.B.A.  
*Business*
- Hailes, Roger P., B.A., M.A.  
*English*
- Haine, Ronald W., B.S., M.S.  
*Business*
- Haley, David L., B.S.  
*Chemistry*
- Hall, Frederick B., Jr., B.S., B.A., M.A., Ph.D.  
*French*
- Hall, George L.  
*Mass Communications*
- Halstead, Jon S., B.A., M.S., Ph.D.  
*Psychology*
- Hamel, Dana B., A.B., M.A., Ed.D.  
*Education*
- Hanna, John T., B.S.  
*Administration of Justice and Public Safety*
- Harrell, Martha F., B.A.  
*Philosophy*
- Harris, Billy D., B.S.B.A., M.B.A.  
*Business*
- Harrison, Mary M., B.A., M.Ed.  
*Education*
- Hassell, Thomas T., B.A., J.D.  
*Business*
- Hauhart, Robert C., M.A.  
*Sociology*
- Hauxwell, Gerald D., B.S., M.S., Ph.D.  
*Mathematics*
- Haverty, Anita D., B.S., M.S.  
*Business*
- Hawkes, Robert H., B.F.A., M.F.A.  
*Painting and Printmaking*
- Hawner, Pierre H., B.S., B.B.A.  
*French*
- Hibbitts, Charles H., A.B.  
*Chemistry*
- Hicks, Barbara L.  
*Theatre*
- Hicks, William R., A.B.  
*Theatre*
- Hobbs, Mary C., B.S.  
*Biology*
- Hobbs, Odell, B.M., M.M., Doctor of Arts  
*Music*
- Hudgins, H. Howard, Jr., B.S.  
*Photography*
- Huff, Eloise,  
*Education*
- Hurst, John H., B.S., M.Ed.  
*Health Education*
- Irby, James M., B.S.B.A., M.S., CPA  
*Business*
- Israel, David A., B.A., M.S., Ph.D.  
*Psychology*
- Iwanik, Michael J., B.S., M.S.  
*Biology*
- Jameson, Barbara B., B.S., Ph.D.  
*Social Work*
- Jenkins, Joseph H., A.B., A.M.  
*Afro-American Studies*
- Jenkins, Wilbert L., B.S., M.S.  
*Education*
- Jervis, James F., B.A., M.Ed.  
*Education*
- Joffe, Jakob, B.A., M.A.  
*Urban Studies*
- Johann, William H. III, B.M.E., M.S.  
*Business*
- Jones, Thomas A., B.S.  
*Music*
- Jordan, John W. III, B.S., M.S.  
*Education*
- Kallman, Mary J., B.S., M.S., Ph.D.  
*Psychology*
- Kang, John C., B.A., B.S.  
*Chinese*

## 242 Board, Administration, and Faculty

- Kass, Carole G.,  
*Art History*
- Kassman, Allan, B.S., Ph.D.  
*Chemistry*
- Keeling, John F., B.S., M.B.A.  
*Business*
- Kennedy, Joseph J., B.S., M.M.E.  
*Music*
- Kent, J. Natalie, B.S.  
*Physical Education*
- Kilduff, Mark R., A.B., M.B.A.  
*Business*
- King, Irving R., B.S.  
*Physics*
- Kling, Leo III, B.S., M.S., Ed.D.  
*Chemistry*
- Konrad, Linn B., B.A., M.A.  
*French*
- Kornfeld, Richard A., B.S., Ph.D.  
*Chemistry*
- Krumme, Linda C., B.F.A.  
*Physical Education*
- Lambert, Susan R., B.S.  
*Business*
- Lang, Margaret M., B.S., M.Ed.  
*Education*
- Laprade, James W.  
*Photography*
- Larrabee, Herbert W., B.A., LL.B., J.D.  
*Business*
- Lawes, Rena D., B.A., M.S.  
*Physical Education*
- Lawless, Sharon L., B.F.A., M.F.A.  
*Painting and Printmaking*
- Lawlor, Harold J., B.A., M.S.  
*Business*
- Lee, Robert E., B.S., LL.B.  
*Business*
- Leone, Philip A., B.S., M.U.R.P.  
*Urban and Regional Planning*
- Levine, Mark, B.A., M.Ed.  
*Education*
- Levy, Sander A., B.S., B.A., M.S., Ph.D.  
*Physical Science*
- Lewis, Willie H., B.S.  
*Chemistry*
- Liberto, I. Peter  
*Italian*
- Lindley, James T., A.A., B.A.  
*Economics*
- Lindsey, Carolyn N., B.A., M.Ed.  
*Education*
- Lipman, Barry E., B.A.  
*Economics*
- Lohr, Lois A., B.S.  
*Mathematics*
- Lovelock, Frank A. III, B.A., M.A.  
*English*
- MacIntosh, Carol S., B.A.  
*Rehabilitation Counseling*
- McCarty, Karen E., B.S.  
*Biology*
- McDonald, Jacqueline S., B.A., M.A.  
*French*
- McDorman, Hazel E., B.S., M.Ed.  
*Education*
- McKeever, Mark R., B.A.  
*Chemistry*
- McLaughlin, Susan I., B.A., M.Ed.  
*Health Education*
- McNamara, Alexander, B.A., M.A., Ph.D.  
*German, Humanities*
- Mabe, G. Ann, B.S., M.S.  
*Anthropology*
- Mackey, Wade C., B.A., M.A., Ph.D.  
*Anthropology*
- Mallory, Fred C., B.A., B.D., Th.D.  
*Philosophy*
- Manarin, Louis H., B.S., M.A., Ph.D.  
*History*
- Marshall, Larry R., B.S., M.S., Ph.D.  
*Physics*
- Mason, Craig A., B.B.A., M.S., CPA  
*Business*
- Masullo, Antonio, LL.B.  
*Latin*
- Matarese, Margo M., B.A., M.A.  
*English*
- Meads, Edward G., B.A., M.Div.,  
*Rehabilitation Counseling*
- Medas, Brian R., B.M.  
*Music*
- Mercer, Mary E., B.A., M.A., Ph.D.  
*Education*
- Merritt, Charles H., B.S., M.S.  
*Rehabilitation Counseling*
- Michael, Thomas C., B.A., M.S.  
*Rehabilitation Counseling*
- Miesch, Glen R., B.A.  
*Recreation*
- Miller, Anne F., A.B., M.H.  
*Education*
- Miller, Rita K., B.A., M.S., C.P.A.  
*Business*
- Mittendorf, Kenneth L., B.S., M.B.A.  
*Business*
- Moore, David P., B.S., M.Ed.  
*Education*
- Moore, John C., B.A., M.A., J.D.  
*Business*
- Moorer, Seale A., B.S.  
*Fashion Design*
- Morchower, Michael, B.A., LL.B.  
*Administration of Justice and Public Safety*
- Mordhorst, Robert L., B.A., S.T.M.  
*Social Sciences*
- Morris, Elton, M.A.  
*Urban Studies, Sociology, and Afro-American Studies*
- Morris, Thomas R.  
*Mass Communications*
- Mosby, Robert A., A.B., M.A.  
*Philosophy*
- Mosher, Betty P., B.S., M.S.  
*Business*
- Munro, Sue F., B.A., M.A.  
*English*
- Napier, Richard D., B.S., M.S.  
*Business*

- Nau, William H., B.S., M.E., Ph.D.  
*Mathematics*
- Nelson, Jane F.  
*Economics*
- Newcomb, C. Lynn, B.A., M.Ed.  
*Health Education*
- Northington, A. Marshall, B.S., CPA  
*Business*
- Nostrand, Peter F., Premier Degree, B.A., M.Ed.  
*French*
- Ott, Matthew N., Jr., A.B., LL.B.  
*Administration of Justice and Public Safety*
- Overby, Lowell T., B.S., M.E., Ph.D.  
*Business*
- Overstreet, Mary L., B.A.  
*Physical Education*
- Owens, Maureen, B.A.  
*Greek*
- Pandiello, Estela A., Ph.D.  
*Spanish*
- Parks, Lavada W., B.M., M.M.  
*Music*
- Pasternak, Linda J.  
*Rehabilitation Counseling*
- Pastuhov, Serge V., B.A., M.A.  
*Foreign Language in English Translation*
- Patterson, Barbara J., B.S., M.S.  
*Mathematics*
- Payne, Dan B.A., M.A., Ph.D.  
*Rehabilitation Counseling*
- Pazera, Joan S., A.A.  
*Rehabilitation Counseling*
- Perrins, Barbara P., Baccalaureate  
*Italian*
- Phelps, Robert C., M.S., B.Ed.  
*Community Services*
- Phillips, Mary D., B.A.  
*Speech*
- Pignato, John C., B.A., M.A.P.A.  
*Public Administration*
- Pleasants, Carol, B.S., M.S.  
*Education*
- Ponton, John R., Jr., B.A., M.A.  
*Geography*
- Porter, Barbara J., B.S., M.S.  
*Mathematics*
- Powers, Harvey W., B.A.  
*Mass Communications*
- Price, Charles K., B.A., M.Ed., Ed.D.  
*Education*
- Proctor, Harold J., B.S., M.Ed.  
*Education*
- Pudner, H. Peter, M.A.  
*History*
- Pugh, Mildred D., A.B., M.A.  
*English*
- Quinn, Elaine H., A.B., M.Ed.  
*Rehabilitation Counseling*
- Quinn, Peter J., B.A.  
*Rehabilitation Counseling*
- Quinlan, Martha E.  
*Physical Education*
- Radcliffe, Doris S., B.S.  
*Education*
- Radler, Antoinette L., B.A.  
*Mass Communications*
- Raines, James L., B.S., M.Ed.  
*Physical Education*
- Randolph, Pearl P., B.S., M.S.  
*Business*
- Raymond, Walter J., M.A., S.J.D., LL.M., Ph.D.  
*Political Science*
- Reynolds, Jesse A., B.S.  
*Recreation*
- Rezba, Carol, B.A., M.A.  
*Education*
- Rhinesmith, W. Donald, A.B., M.A.  
*History*
- Richards, Pamela C., B.S.  
*Mathematics*
- Rider, D. Brickford, B.S.  
*Mass Communications*
- Riordan, Sally M.  
*Rehabilitation Counseling*
- Ritz, Michael C., B.S., M.S.  
*Urban Studies*
- Rives, Sterling E. III, B.A., M.A.  
*Latin*
- Robinson, Thomas H., B.S., J.D.  
*Business*
- Rollins, Darrel, A.B., M.R.E.  
*Afro-American Studies*
- Rosecrans, John A., B.S., M.S., Ph.D.  
*Pharmacology*
- Rosenthal, Mitchell, B.A., M.A., Ph.D.  
*Psychology*
- Ross, Susan C., B.S., M.Ed.  
*Education*
- Ruffin, William F., B.S.  
*Business*
- Rule, Jane B., B.A., M.Ed.  
*Rehabilitation Counseling*
- Ryan, Sandra B., B.S.  
*Chemistry*
- Rybarczyk, James P., B.S., M.S.  
*Chemistry*
- Sager, G. Rodney, B.S., J.D.  
*Business*
- Sahli, Brenda P., B.S., M.S., Ph.D.  
*Chemistry*
- Sahli, Muhammad S., B.S., Ph.D.  
*Chemistry*
- Sanders, Edward B., A.B., M.S., Ph.D.  
*Chemistry*
- Sange, Sally H., B.S.  
*Arabic*
- Sansing, Peggy J., B.A., M.S.  
*Mathematics*
- Satterwhite, Robert A., Jr., B.S.  
*Music*
- Sauer, David F., B.F.A., M.A.  
*Painting and Printmaking, Photography*
- Sawyer, Kathleen M., B.S., M.A.  
*Education*
- Scanlin, Marilyn G., B.F.A.  
*Art Foundations*
- Schacht, Richard J.  
*Physical Education*

## 244 Board, Administration, and Faculty

- Schroetter, Hilda N., A.B., M.A.  
*English*
- Schubmehl, William P., B.S., M.B.A.  
*Business*
- Schwartz, Helen, B.S.  
*Business*
- Segal, Steve R., B.F.A.  
*Communication Arts and Design*
- Seward, Lynn K., B.S.  
*Community Services*
- Seward, William H., B.S.  
*Psychology*
- Shamblee, Dwight A., B.S., M.S.  
*Chemistry*
- Shanklin, James R., Jr., B.A., Ph.D.  
*Chemistry*
- Sherertz, Peter C., B.S.  
*Biology*
- Shuler, Ralph N., Jr., B.S.  
*Business*
- Sherrod, Julie A.  
*Biology*
- Silvers, Dorothy E., B.A., M.A.  
*English*
- Sims, Jane A., B.A., M.A.  
*French*
- Sims, Lynn L., B.A., M.A., Ph.D.  
*History*
- Slayden, Eugene R.  
*Physical Education*
- Smith, Charles D., A.B., M.A., Ph.D.  
*Physical Science*
- Smith, Genevieve B., B.A., M.A., M.S., Ph.D.  
*French*
- Smith, R. Kemper, Jr., B.S., M.S.  
*Business*
- Smith, Williard L., B.C.P., M.A.  
*Business*
- Snellings, Stanley B., B.S., M.S., CPA  
*Business*
- Sokolof, Marilyn T., B.A., M.A., Ph.D.  
*Education*
- Southward, Mary B., B.M.E., M.M.  
*Music*
- Spangler, Kyle D., B.F.A.  
*Photography*
- Spencer, Ralph D., B.S.  
*Business*
- Spiers, Helen H., B.S., M.Ed.  
*Music*
- Spiro, Jack D., B.A., M.A., D.H.L.  
*Religious Studies*
- Spitler, Joann, A.B., M.C.  
*Business*
- Steele, Richard G., A.A., B.S., M.S.  
*Business*
- Stephens, William K. III, B.A., M.B.A.  
*Business*
- Stikas, Marianne, B.F.A., M.F.A.  
*Painting and Printmaking*
- Story, Geraldine B., B.S., M.S.  
*Business*
- Strikwerda, Thomas E., B.S., M.A., Ph.D.  
*Physical Science*
- Sturman, Ronald, B.A., M.S., M.S.  
*Mass Communications*
- Swyers, Betty J., B.A., M.Ed.  
*Education*
- Taylor, Deon  
*Social Work*
- Taylor, James C., B.A.  
*Mathematics*
- Taylor, James H., Jr., A.B., M.A.  
*Education*
- Taylor, R. Dean, B.A., M.A., Ed.D.  
*Rehabilitation Counseling*
- Tennent, Wayne T., B.A., M.S.  
*Business*
- Thedford, Carol A., B.A.  
*Mathematics*
- Thomas, Charles E., Jr., A.S., B.S.  
*Chemistry*
- Thomas, Haley F., A.B., M.A.  
*French*
- Thompson, Thomas W., B.A., B.S.J., M.A., M.Ph., Ph.D.  
*Business*
- Thompson, Wayne C., B.A., M.S., Ph.D.  
*Psychology*
- Thurston, Beverly M., B.A., M.S.  
*Political Science*
- Tobler, Henry C. III, B.S., M.S.  
*Business*
- Todd, Alice R., Ph.D.  
*French*
- Todd, J. Michael, B.S., M.S., C.P.A.  
*Business*
- Topich, Ruth M., B.A.  
*Chemistry*
- Townsend, William H., B.S., M.S.  
*Business*
- Tyson, Anneliese G.  
*German*
- Underwood, J. William, B.A., M.Ed., C.A.S., Ph.D.  
*Rehabilitation Counseling*
- Udike, Thomas F., B.S., Ph.D.  
*Rehabilitation Counseling*
- Van de Walle, Sharon, B.A., M.Ed.  
*Education*
- Venable, W. H. Cabell, B.A., LL.B.  
*Political Science*
- Wagner, Eileen N., B.S., M.Ed., Ed.D.  
*English*
- Wagoner, Forrest S. II, B.A., M.S.  
*Business*
- Walz, David H., B.S., M.A.  
*Physical Science*
- Ward, Henry D., B.S., M.S.Ed.  
*Physics*
- Warriner, Helen P., B.A., M.A., Ph.D.  
*Spanish*
- Washburn, Mary J., B.S., M.Ed.  
*Education*
- Watkins, Edwin W., A.B., M.A.  
*Foreign Language in English Translation*
- Watts, Margaret O., B.A., M.S.W.  
*Social Work*
- Weaver, Carl G. K., B.S., M.S.  
*Business*



Weisnicht, William L., B.S.

*Chemistry*

Weissbecker, S., B.A.

*Mathematics*

Wenger, Paul L., B.A., M.Ed.

*Education*

West, Raymond A.

*Chemistry*

Wetton, Marilyn M., B.F.A., M.F.A.

*Crafts*

Wheary, Dale C., B.A., M.A.

*English*

Wheatley, Michael, B.S., M.A.

*Art Foundations*

White, David R., B.S.

*Photography*

White, Edwin P., B.Ed., M.Ed., Ed.D.

*Education*

Whitener, Charles N., Jr., B.S., M.B.A.

*Business*

Wickham, Teresa G., B.S.

*Business*

Wiggins, Joseph H., B.S., M.S.

*Rehabilitation Counseling*

Williamson, Mary A., B.A., M.H.

*Humanities*

Wilson, Howard B., B.A., M.A., Ph.D.

*Business*

Wishnack, Marshall B., B.A., M.B.A.

*Business*

Wist, Abund O., B.S., M.S., Ph.D.

*Chemistry*

Woehle, Ralph E., B.S., M.S.

*Sociology*

Woodfin, William L., B.S.

*Biology*

Woolridge, Edward G., Jr., B.S.

*Music*

Woolford, William W., B.S., M.T.S.

*Physics*

Word, Charles P., B.S., M.C.

*Business*

Wrenn, James R., Jr., B.A., J.D.

*Business*

Wright, Shirley G., B.A., B.F.A., M. ART Ed.

*Photography and Education*

Wyatt, Alvah L., B.A., M.S., CPA

*Business*

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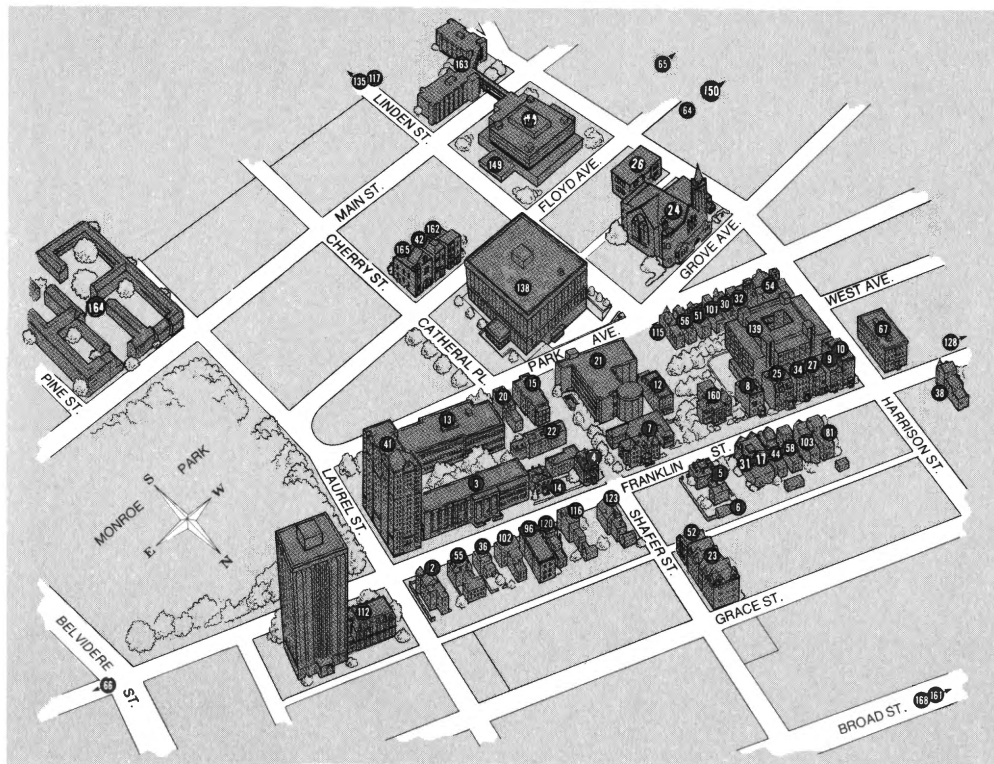


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